CONTENTS

Glycoscience Products

Monosaccharides

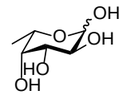
GD-0001 L-fucose

M.F.: $C_6H_{12}O_5$

M.W.: 164.16

CAS No.: 6696-41-9 / 2438-80-4

Package: mg to kg



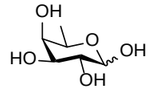
GD-0002 D-fucose

M.F.: $C_6H_{12}O_5$

M.W.: 164.16

CAS No.: 3615-37-0

Package: mg to kg



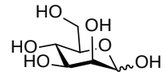
GD-0003 D-mannose

M.F.: $C_6H_{12}O_6$

M.W.: 180.16

CAS No.: 3458-28-4

Package: mg to kg



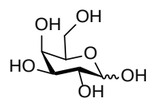
GD-0004 D-galactose

M.F.: $C_6H_{12}O_6$

M.W.: 180.16

CAS No.: 59-23-4

Package: mg to kg



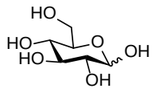
GD-0005 D-glucose

M.F.: $C_6H_{12}O_6$

M.W.: 180.16

CAS No.: 50-99-7

Package: mg to kg



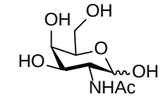
GD-0006 D-GalNAc

M.F.: $C_8H_{15}NO_6$

M.W.: 221.21

CAS No.: 1811-31-0

Package: mg to kg



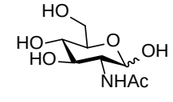
GD-0007 D-GlcNAc

M.F.: $C_8H_{15}NO_6$

M.W.: 221.21

CAS No.: 10036-64-3 / 7512-17-6

Package: mg to kg



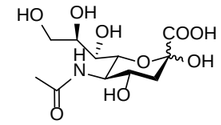
GD-0008 Neu5Ac

M.F.: $C_{11}H_{19}NO_9$

M.W.: 309.27

CAS No.: 131-48-6

Package: mg to kg



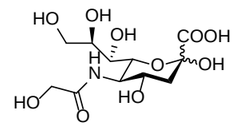
GD-0009 Neu5Gc

M.F.: $C_{11}H_{19}NO_{10}$

M.W.: 325.27

CAS No.: 1113-83-3

Package: mg to kg



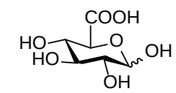
GD-0010 D-GlcA

M.F.: $C_6H_{10}O_7$

M.W.: 194.14

CAS No.: 6556-12-3

Package: mg to kg



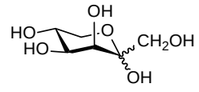
GD-0011 D-tagatose

M.F.: $C_6H_{12}O_5$

M.W.: 180.16

CAS No.: 87-81-0

Package: mg to kg



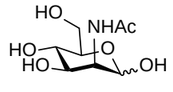
GD-0013 N-Acetyl-D-mannosamine

M.F.: $C_8H_{15}NO_6$

M.W.: 221.21

CAS No.: 7772-94-3

Package: mg to kg



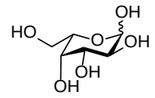
GD-0014 L-galactose

M.F.: $C_6H_{12}O_6$

M.W.: 180.16

CAS No.: 12772-65-5

Package: mg to kg



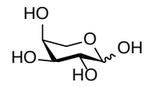
GD-0015 L-Arabinose

M.F.: $C_5H_{10}O_5$

M.W.: 150.13

CAS No.: 59-23-4

Package: mg to kg



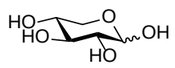
GD-0016 D-Xylose

M.F.: $C_5H_{10}O_5$

M.W.: 150.13

CAS No.: 58-86-6

Package: mg to kg



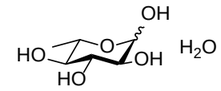
GD-0018 L-rhamnose hydrate

M.F.: $C_6H_{14}O_6$

M.W.: 182.17

CAS No.: 10030-85-0

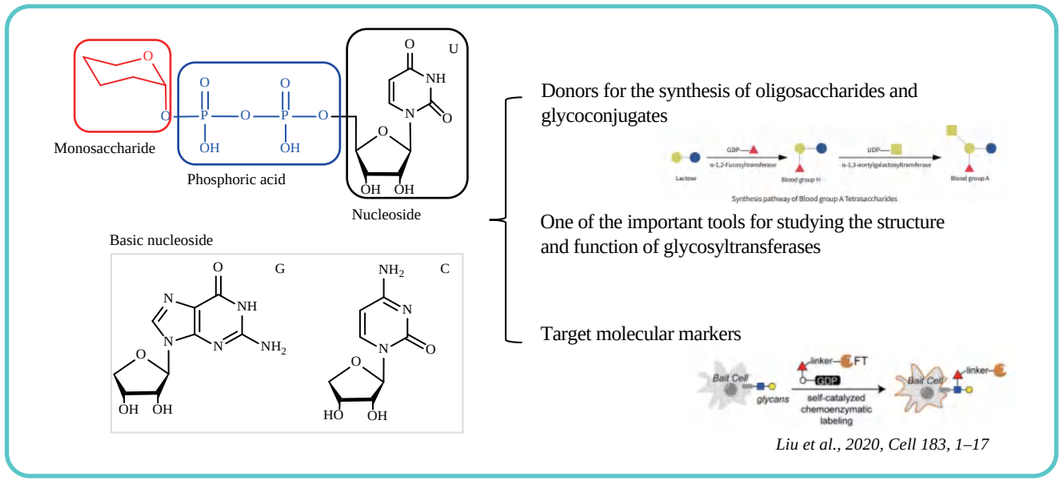
Package: mg to kg



Sugar nucleotides

Background

Sugar nucleotides, also known as sugar nucleoside diphosphate or nucleoside monophosphate, are derivatives formed by reacting different monosaccharide with hydroxyl groups. Its structure is composed of three parts (i.e., sugar, phosphate and nucleoside). Sugar nucleotides are activated forms during the synthesis of glycans, such as UDP-Gal, GDP-Fuc and CMP-Sia.



Liu et al., 2020, Cell 183, 1–17

Application

Antibiotic metabolism pathways

Antibiotics have important applications in the fields of biomedicine and pharmacy. Many antibiotics have one or more sugar groups, which play an important role in their biological activity. Therefore, antibiotic glycosylation is one of the main research area in antibiotic metabolism.

Most of the sugar groups in natural products are synthesized from D-glucose 1-phosphate which act as the starting material. The compound is utilized to synthesize NDP-glucose, and then catalyzed by a series of enzymes to obtain the target NDP-sugar, which is finally transferred to the antibiotic backbone by diverse glycosyltransferases. Throughout the process, the enzyme substrates are sugar nucleotide. In summary, sugar nucleotides play a significant role in antibiotic metabolism.

Biochemical characterisation of glycosyltransferases

Sugar nucleotides, the natural substrates of glycosyltransferases, are one of the important tools for studying the structure and function of glycosyltransferases. Traditionally, the catalytic activity of glycosyltransferases is only considered to transfer the activated sugar donor to acceptor substrates. However, it was found that glycosyltransferase can hydrolyse the sugar moiety on the antibiotics in the presence of corresponding nucleotides (i.e., reverse reaction). Moreover, some glycosyltransferases have relaxed substrate specificity and can catalyze the transfer of various sugar nucleotides to the antibiotic backbone. Based on the above two points, the replacement reaction between sugar and antibiotic backbone has been successfully discovered, thus providing a strategy for replacing antibiotics with new sugar groups and exchanging the existing sugar groups among various antibiotics.

Biological mechanism study

The application of click chemistry in glycobiology is becoming more and more important. This kind of method is mainly to modify biochemical molecules by modified sugars, and then label the target molecules in situ by click chemistry, so as to conduct mechanism study[1-2]. Sugar nucleotides play an increasingly important role in chemical glycobiology as natural substrates for a variety of enzymes.

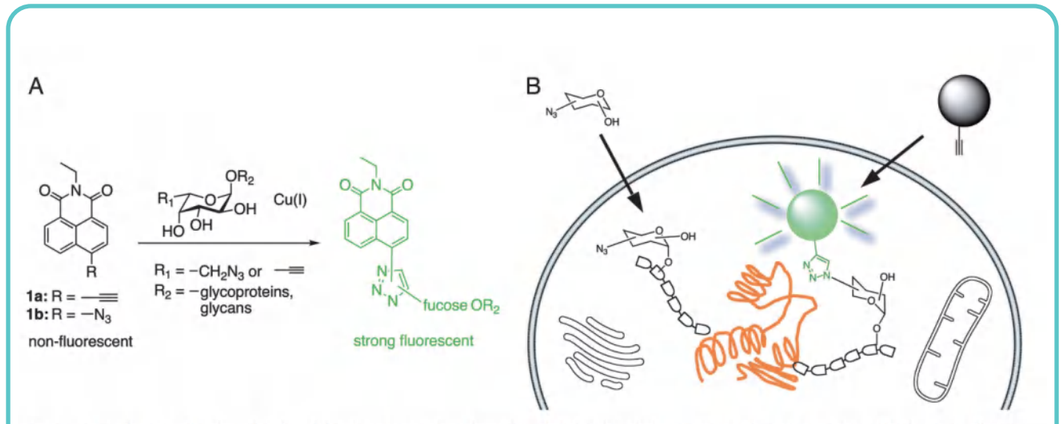


Fig. 1. General strategy for glycan labeling. (*A*) Probe structures based on 1,8-naphthalimide include an azide or alkyne at a position of the ring that will allow a fluorogenic ligation with 6-modified fucose analogs. The fluorescence adduct is generated when probes are reacted with the azido/alkynyl group of fucosides via Cu(I)-catalyzed [3 + 2] cycloaddition. (*B*) Strategy for specific fluorescent labeling of fucosylated glycans in cells. Covalent modification of the target glycan with probes **1a** or **1b** results in production of fluorescently labeled glycoproteins bearing modified fucose (azidofucose shown).

Reference:

[1] Sawa M, et al. PNAS, 2006, 103(33):12371-12376.

[2] Marchesan S, et al. Chem Commun, 2008, 36(36):4321-4323.

Sugar nucleotides

SN-1001 CMP-Neu5Ac.2Na

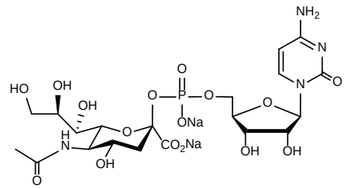
Purity: 85%

M.F.: $C_{20}H_{29}N_4Na_2O_{16}P$

M.W.: 658.42

CAS No.: 3063-71-6/1007117-62-5

Package: 50 mg, 100 mg, 200 mg, 500 mg, 1 g



SN-1002 CMP-Neu5Gc.2Na

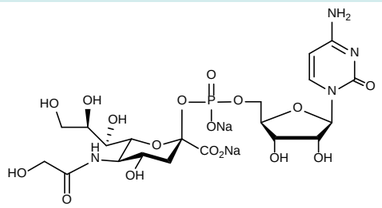
Purity: 90%

M.F.: $C_{20}H_{29}N_4Na_2O_{17}P$

M.W.: 674.42

CAS No.: 98300-80-2

Package: 50 mg, 100 mg, 200 mg, 500 mg, 1 g



SN-1003 UDP-Glc.2Na

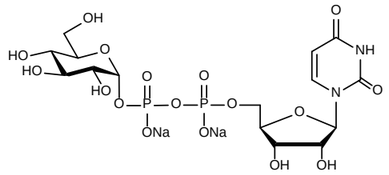
Purity: 98%

M.F.: $C_{15}H_{22}N_2Na_2O_{17}P_2$

M.W.: 610.27

CAS No.: 117756-22-6

Package: mg to kg



SN-1004 UDP-Gal.2Na

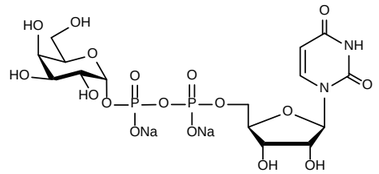
Purity: 98%

M.F.: $C_{15}H_{22}N_2Na_2O_{17}P_2$

M.W.: 610.27

CAS No.: 137868-52-1

Package: mg to kg



Sugar nucleotides

SN-1005 UDP-GlcNAc.2Na

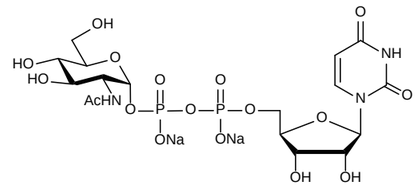
Purity: 98%

M.F.: $C_{17}H_{25}N_3Na_2O_{17}P_2$

M.W.: 651.32

CAS No.: 91183-98-1

Package: mg to kg



SN-1006 UDP-GalNAc.2Na

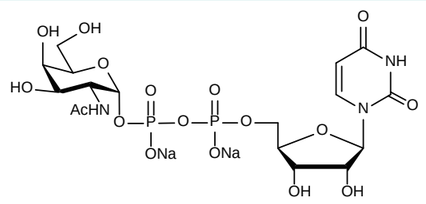
Purity: 98%

M.F.: $C_{17}H_{25}N_3Na_2O_{17}P_2$

M.W.: 651.32

CAS No.: 108320-87-2

Package: mg to kg



SN-1007 UDP-GlcA.3Na

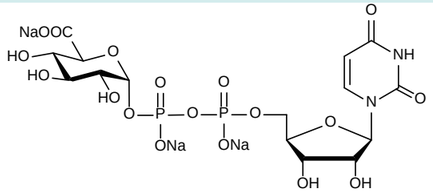
Purity: 98%

M.F.: $C_{15}H_{19}N_2Na_3O_{18}P_2$

M.W.: 646.23

CAS No.: 63700-19-6

Package: mg to kg



SN-1008 UDP-GalA.3Na

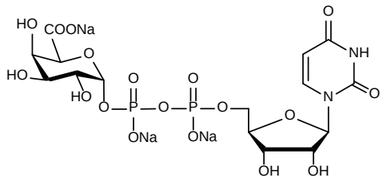
Purity: 98%

M.F.: $C_{15}H_{19}N_2Na_3O_{18}P_2$

M.W.: 646.23

CAS No.: 148407-07-2

Package: mg to kg



SN-1009 GDP-L-Fuc.2Na

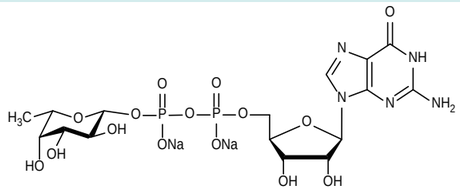
Purity: 98%

M.F.: $C_{16}H_{23}N_5Na_2O_{15}P_2$

M.W.: 633.31

CAS No.: 15839-70-0

Package: mg to kg



SN-1010 GDP-D-Man.2Na

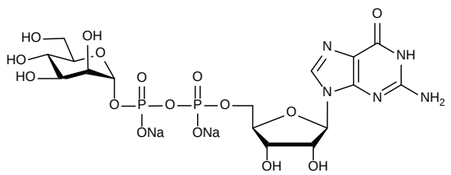
Purity: 98%

M.F.: $C_{16}H_{23}N_5Na_2O_{16}P_2$

M.W.: 649.31

CAS No.: 103301-73-1

Package: mg to kg



SN-1011 UDP-Xyl.2Na

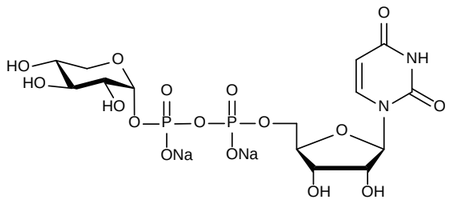
Purity: 98%

M.F.: $C_{14}H_{21}N_2NaO_{16}P_2$

M.W.: 558.26

CAS No.: 108320-89-4

Package: mg to kg



SN-1012 UDP-β-L-Rhamnose.2Na

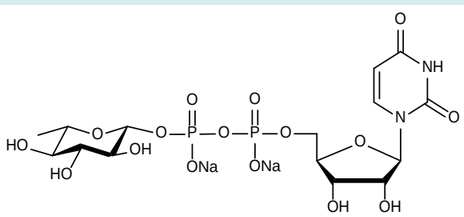
Purity: 95%

M.F.: $C_{15}H_{24}N_2O_{16}P_2$

M.W.: 550.30

CAS No.: 1955-26-6

Package: mg to kg



SN-1013 UDP-β-L-Ara.2Na

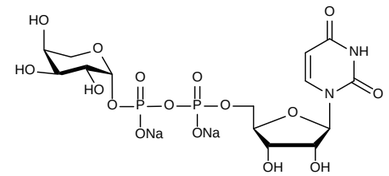
Purity: 95%

M.F.: $C_{14}H_{20}N_2Na_2O_{16}P_2$

M.W.: 580.24

CAS No.: 15839-78-8

Package: 10 mg, 20 mg, 50 mg, 1 g



SN-1014 GDP-6-deoxy-β-d-talose.2Na

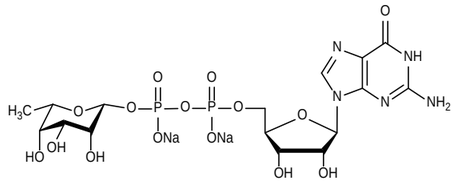
Purity: 98%

M.F.: $C_{16}H_{23}N_5Na_2O_{15}P_2$

M.W.: 633.31

CAS No.: N/A

Package: 100 mg, 200 mg, 500 mg, 1 g



SN-1015 UDP-GlcNAz.2Na

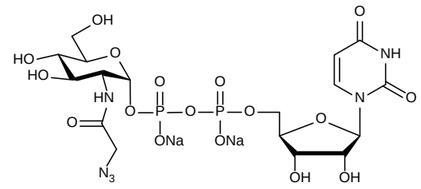
Purity: 98%

M.F.: $C_{17}H_{24}N_6Na_2O_{17}P_2$

M.W.: 692.33

CAS No.: 1611490-64-2

Package: mg to kg



SN-1016 UDP-GalNAz.2Na

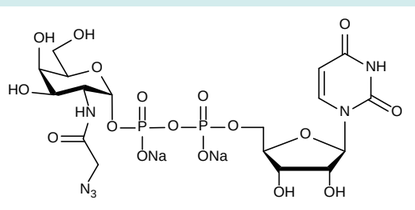
Purity: 98%

M.F.: $C_{17}H_{24}N_6Na_2O_{17}P_2$

M.W.: 692.33

CAS No.: 653600-61-4

Package: mg to kg



Sugar nucleotides

SN-1017 UDP-6-azido-6-deoxy-D-Glc.2Na

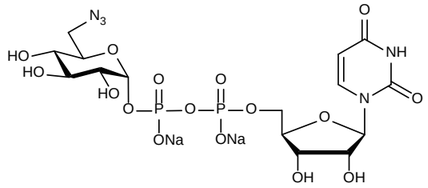
Purity: 95%; 98%

M.F.: $C_{15}H_{21}N_5Na_2O_{16}P_2$

M.W.: 635.28

CAS No.: 537039-67-1

Package: 10 mg, 50 mg, 100 mg, 200 mg, 500 mg, 1 g



SN-1018 UDP-6-azido-6-deoxy-D-Gal.2Na

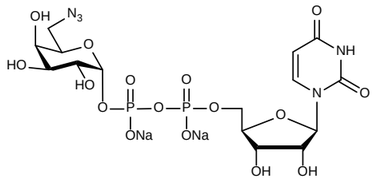
Purity: 95%; 98%

M.F.: $C_{15}H_{21}N_5Na_2O_{16}P_2$

M.W.: 635.28

CAS No.: 868208-96-2

Package: 10 mg, 50 mg, 100 mg, 200 mg, 500 mg, 1 g



SN-1019 UDP-GlcNTFA.2Na

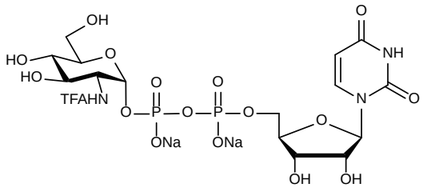
Purity: 95%; 98%

M.F.: $C_{17}H_{22}F_3N_3Na_2O_{17}P_2$

M.W.: 705.02

CAS No.: 1355005-47-8

Package: mg to kg



SN-1020 UDP-GalNTFA.2Na

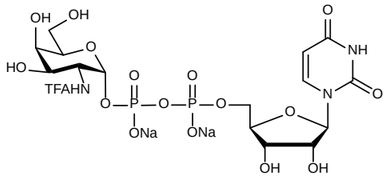
Purity: 95%; 98%

M.F.: $C_{17}H_{22}F_3N_3Na_2O_{17}P_2$

M.W.: 705.29

CAS No.: N/A

Package: mg to kg



Sugar nucleotides

SN-1021 UDP-2-deoxy-Glucose.2Na

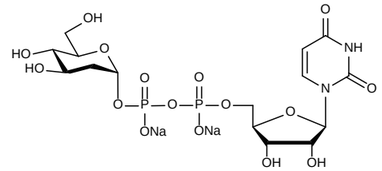
Purity: 95%; 98%

M.F.: $C_{15}H_{22}N_2Na_2O_{16}P_2$

M.W.: 594.27

CAS No.: N/A

Package: 10 mg, 50 mg, 100 mg, 200 mg, 500 mg, 1 g



SN-1022 UDP-2-F-Glc.2Na

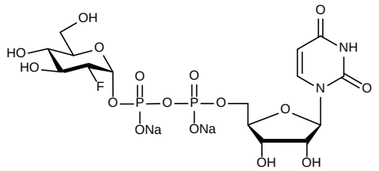
Purity: 95%; 98%

M.F.: $C_{15}H_{21}FN_2Na_2O_{16}P_2$

M.W.: 612.26

CAS No.: N/A

Package: 10 mg, 20 mg, 50 mg, 100 mg



SN-1023 GDP-6-N_3-Fuc.2Na

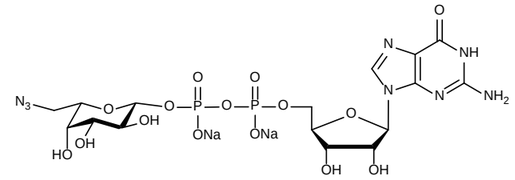
Purity: 98%

M.F.: $C_{16}H_{22}N_8Na_2O_{15}P_2$

M.W.: 674.32

CAS No.: N/A

Package: mg to kg



SN-1024 GDP-6-Al-Fuc.2Na

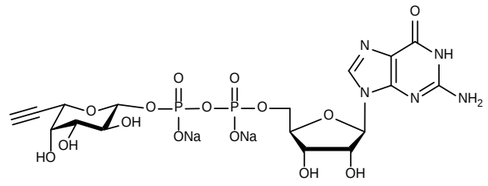
Purity: 98%

M.F.: $C_{17}H_{21}N_5Na_2O_{15}P_2$

M.W.: 643.30

CAS No.: N/A

Package: mg to kg



SN-1025 ADP-D-Glucose.2Na

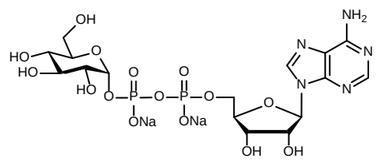
Purity: 95%; 98%

M.F.: $C_{16}H_{23}N_5Na_2O_{15}P_2$

M.W.: 633.31

CAS No.: N/A

Package: 10 mg, 50 mg, 100 mg, 200 mg, 500 mg, 1 g



SN-1026 ADP-D-Man.2Na

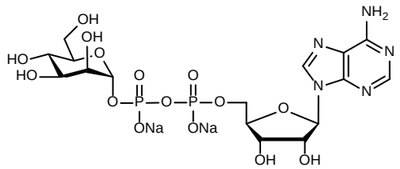
Purity: 95%; 98%

M.F.: $C_{16}H_{23}N_5Na_2O_{15}P_2$

M.W.: 633.31

CAS No.: N/A

Package: 10 mg, 50 mg, 100 mg, 200 mg, 500 mg, 1 g



SN-1027 dTDP-a-D-Glucose.2Na

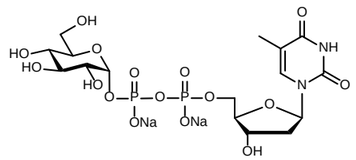
Purity: 95%; 98%

M.F.: $C_{16}H_{24}N_2Na_2O_{16}P_2$

M.W.: 608.29

CAS No.: 2196-62-5

Package: 10 mg, 50 mg, 100 mg, 200 mg, 500 mg, 1 g



SN-1028 UDP-GlcA ammonium salt

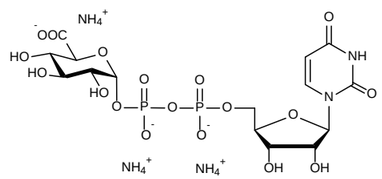
Purity: 98%

M.F.: $C_{15}H_{31}N_5O_{18}P_2$

M.W.: 631.38

CAS No.: 43195-60-4

Package: mg to kg



SN-1029 UDP-GalNH$_2$.2Na

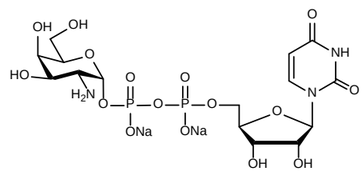
Purity: 98%

M.F.: $C_{15}H_{23}N_3Na_2O_{16}P_2$

M.W.: 609.28

CAS No.: N/A

Package: mg to kg



SN-1030 UDP-GlcNH$_2$.2Na

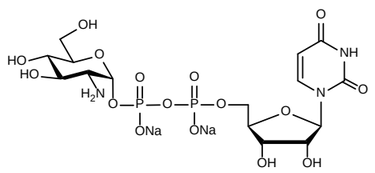
Purity: 98%

M.F.: $C_{15}H_{23}N_3Na_2O_{16}P_2$

M.W.: 609.28

CAS No.: N/A

Package: mg to kg



SN-1031 UDP-GalNAc-6-N$_3$.2NH$_4^+$

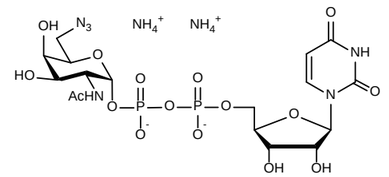
Purity: 98%

M.F.: $C_{17}H_{32}N_8O_{16}P_2$

M.W.: 666.43

CAS No.: N/A

Package: mg to kg



SN-1032 UDP-GalNAc-6-N$_3$.2Na

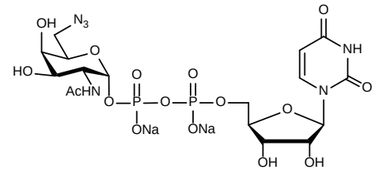
Purity: 98%

M.F.: $C_{17}H_{24}N_6Na_2O_{16}P_2$

M.W.: 676.33

CAS No.: N/A

Package: mg to kg



SN-1034 dTDP-L-Rhamnose.2Na

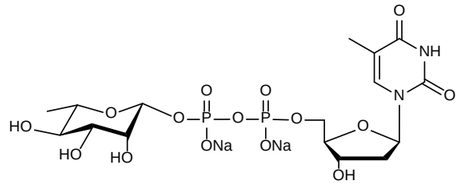
Purity: 98%

M.F.: $C_{16}H_{24}N_2Na_2O_{15}P_2$

M.W.: 592.29

CAS No.: 2147-59-3

Package: mg to kg



SN-1035 CMP-Neu5Az.2Na

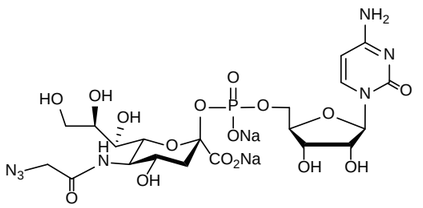
Purity: 98%

M.F.: $C_{20}H_{28}N_7Na_2O_{16}P$

M.W.: 699.43

CAS No.: N/A

Package: mg to kg



SN-1035 CMP-9N3-Neu5Ac.2Na

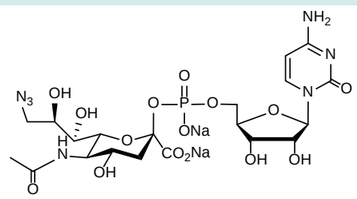
Purity: 98%

M.F.: $C_{20}H_{28}N_7Na_2O_{15}P$

M.W.: 683.43

CAS No.: N/A

Package: mg to kg



Oligosaccharides

Introduction

Oligosaccharides are usually carbohydrates composed of 2 to 10 sugar units linked by glycosidic bonds. The most common oligosaccharides are disaccharides, which are formed by combining twomonosaccharides through glycosidic bonds.

Application

There are a few naturally occurring oligosaccharides, and most oligosaccharides are obtained by chemical or enzymatic hydrolysis of polysaccharides. The research and application offunctional oligosaccharides(e.g. human milk oligosaccharides) in the field of public health are becoming more and more popular.

Many oligosaccharides form specific antigens with proteins and lipids in living organism, which participate in various biological processes, and play important functions. Nearly 200 different kinds of biologically active oligosaccharides are involved in tumor immune pathways (cell adhesion, immune recognition, embryogenesis, tumorigenesis and infection, etc.).This family includes a large number of biologically active oligosaccharides, such as human blood group antigen (ABH, Lewis, P) and carbohydrate moieties of major glycolipids (gangliosides, globulines), etc.

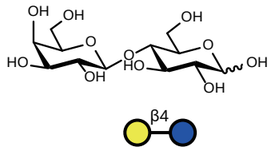
Highassay has multiple various pathways platforms containing chemistry, enzyme, and synthetic biology, and numerous experience in the synthesis and separation of functional oligosaccharides, providing sugar products from milligrams to kilograms.

Reference
M. Speir1, et al. 2017, 7(1):14273.

Miscellaneous glycans

GO-0001 Lactose (Galb1, 4Glc)

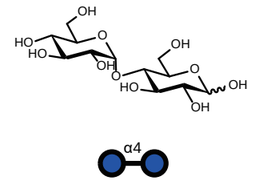
M.F.: $C_{12}H_{22}O_{11}$
M.W.: 342.30
CAS No.: 63-42-3
Package: g to kg



Miscellaneous glycans

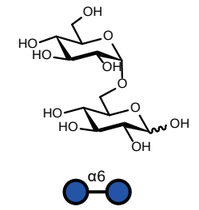
GO-0002 Maltose (Glca1, 4Glc)

M.F.: $C_{12}H_{24}O_{12}$
M.W.: 360.31
CAS No.: 6363-53-7
Package: g to kg



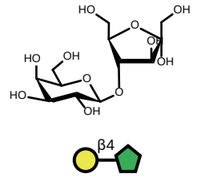
GO-0003 Isomaltose (Glca1, 6Glc)

M.F.: $C_{12}H_{22}O_{11}$
M.W.: 342.30
CAS No.: 499-40-1
Package: g to kg



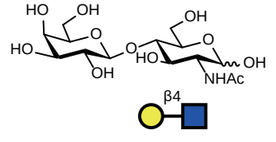
GO-0004 Lactulose (Galb1, 4Fru)

M.F.: $C_{12}H_{22}O_{11}$
M.W.: 342.30
CAS No.: 4618-18-2
Package: g to kg



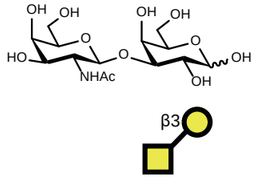
GO-0005 LacNAc(Galb1, 4GlcNAc)

M.F.: $C_{14}H_{25}NO_{11}$
M.W.: 383.35
CAS No.: 32181-59-2
Package: mg to kg



GO-0006 GalNAcb1, 3Gal

M.F.: $C_{14}H_{25}NO_{11}$
M.W.: 383.35
CAS No.: N/A
Package: mg to g



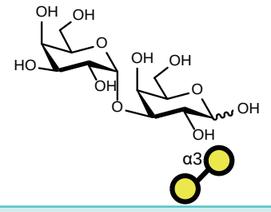
GO-0007 Gala1, 3Gal

M.F.: $C_{12}H_{22}O_{11}$

M.W.: 342.30

CAS No.: 13168-24-6

Package: mg to g



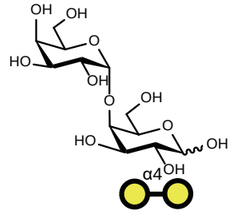
GO-0008 Gala1, 4Gal

M.F.: $C_{12}H_{22}O_{11}$

M.W.: 342.30

CAS No.: 80446-85-1

Package: mg to g



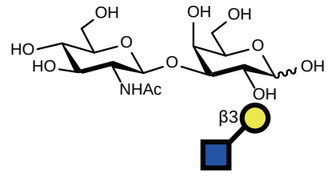
GO-0009 GlcNAcb1, 3Gal

M.F.: $C_{14}H_{25}NO_{11}$

M.W.: 383.35

CAS No.: N/A

Package: mg to g



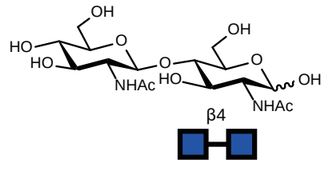
GO-0010 GlcNAcb1, 4GlcNAc

M.F.: $C_{16}H_{28}N_2O_{11}$

M.W.: 424.40

CAS No.: 35061-50-8

Package: mg to g



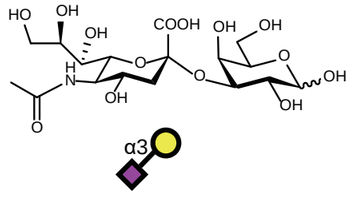
GO-0011 Neu5Aca2, 3Gal

M.F.: $C_{17}H_{29}NO_{14}$

M.W.: 471.41

CAS No.: N/A

Package: mg to g



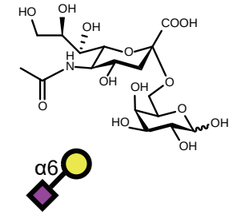
GO-0012 Neu5Aca2, 6Gal

M.F.: $C_{17}H_{29}NO_{14}$

M.W.: 471.41

CAS No.: N/A

Package: mg to g



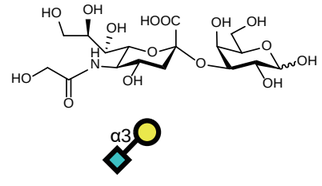
GO-0013 Neu5Gca2, 3Gal

M.F.: $C_{17}H_{29}NO_{15}$

M.W.: 487.41

CAS No.: N/A

Package: mg to g



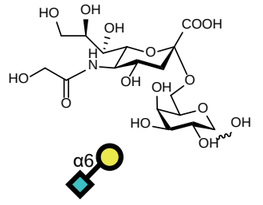
GO-0014 Neu5Gca2, 6Gal

M.F.: $C_{17}H_{29}NO_{15}$

M.W.: 487.41

CAS NO.: N/A

Package: mg to g



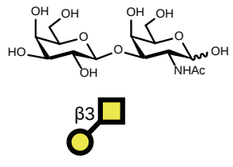
GO-0015 Galacto-N-biose(Galb1,3GalNAc)

M.F.: $C_{14}H_{25}NO_{11}$

M.W.: 383.35

CAS No.: 20972-29-6

Package: mg to g



Malt oligosaccharides

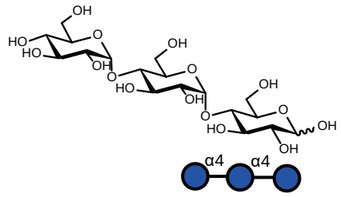
GO-0101 Maltotriose (Glca1, 4Glca1, 4Glc)

M.F.: $C_{18}H_{32}O_{16}$

M.W.: 504.44

CAS No.: 1109-28-0

Package: g to kg



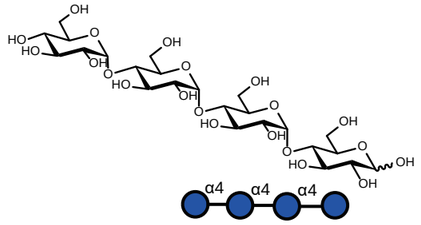
GO-0103 Maltotetraose ((Glca1, 4)$_3$Glc)

M.F.: $C_{24}H_{42}O_{21}$

M.W.: 666.58

CAS No.: 34612-38-9

Package: mg to g



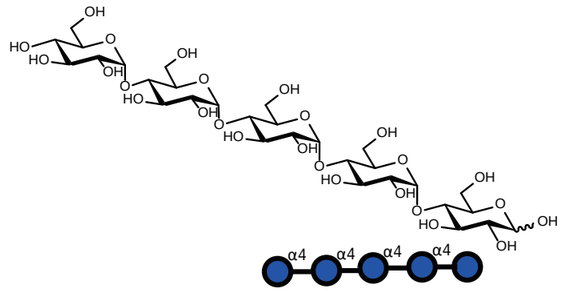
GO-0108 Maltopentaose ((Glca1, 4)$_4$Glc)

M.F.: $C_{30}H_{52}O_{26}$

M.W.: 828.72

CAS No.: 34620-76-3

Package: mg to g



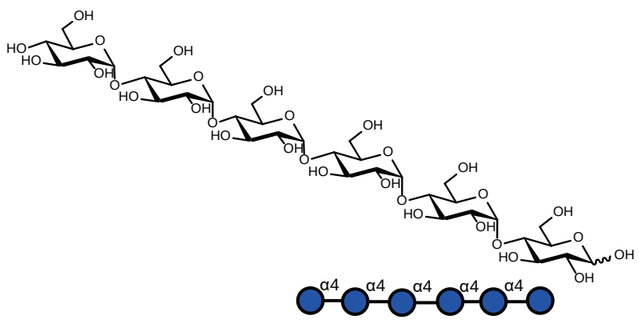
GO-0104 Maltohexaose ((Glca1, 4)$_5$Glc)

M.F.: $C_{36}H_{62}NO_{31}$

M.W.: 990.86

CAS No.: 34620-77-4

Package: g to kg



Malt oligosaccharides

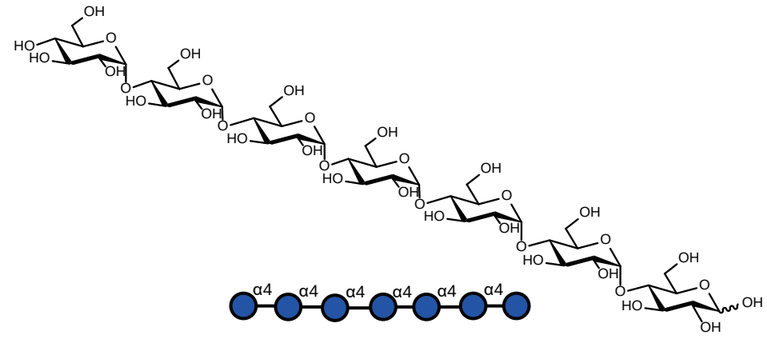
GO-0105 Maltoheptaose ((Glca1, 4)$_6$Glc)

M.F.: $C_{42}H_{72}O_{36}$

M.W.: 1153.00

CAS No.: 34620-78-5

Package: g to kg



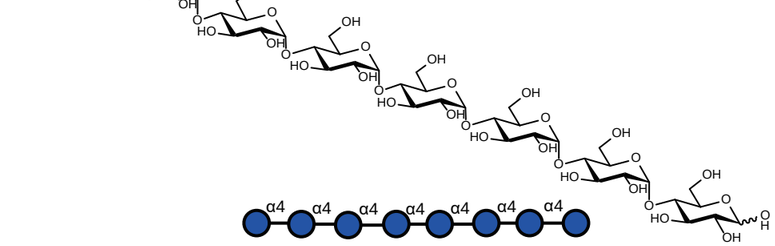
GO-0107 Maltooctaose ((Glca1, 4)$_7$Glc)

M.F.: $C_{48}H_{82}O_{41}$

M.W.: 1315.14

CAS No.: 6156-84-9

Package: g to kg



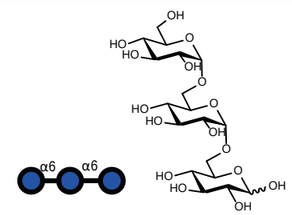
GO-0102 Isomaltotriose (Glca1, 6Glca1, 6Glc)

M.F.: $C_{18}H_{32}O_{16}$

M.W.: 504.44

CAS No.: 3371-50-4

Package: mg to g



Malt oligosaccharides

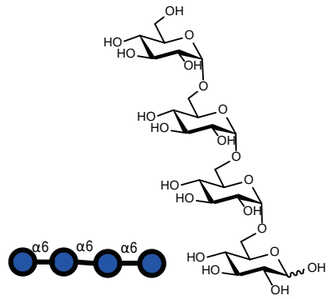
GO-0109 Isomaltotetrose（Glca1, 6Glca1, 6Glc1, 6Glc）

M.F.: $C_{24}H_{42}O_{21}$

M.W.: 666.58

CAS No.: 35997-20-7

Package: mg to g



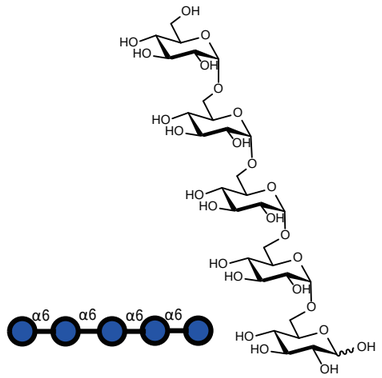
GO-0110 Isomaltopenose（(Glca1, 4)$_4$Glc）

M.F.: $C_{30}H_{52}O_{26}$

M.W.: 828.72

CAS No.: 6082-32-2

Package: mg to g



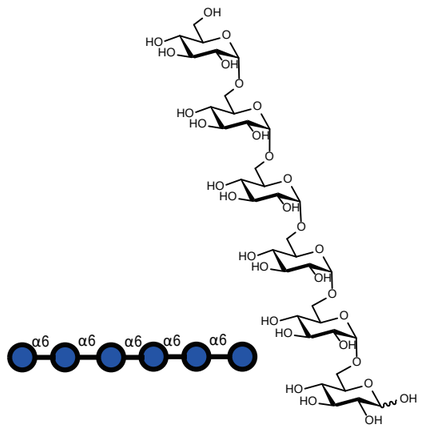
GO-0111 Isomaltohexaose（(Glca1, 6)$_5$Glc）

M.F.: $C_{36}H_{62}O_{31}$

M.W.: 990.86

CAS No.: 6175-02-6

Package: g to kg



Human milk oligosaccharides

There are more than 200 different human milk oligosaccharides, and more than 30 have been determined structurally. Each human milk oligosaccharide has unique function. It is beneficial to the development of the neonatal brain, acting as a prebiotic, supporting the development of the immune system and the intestinal tract, preventing pathogens from adhering to the cell surface, acting as an epithelial cell response regulator, immune cell regulator, and triggering cell protection. Currently, 2'-FL, LNnT, DFL, LNT, 3'-SL, 6'-SL, etc have passed the new food or GRAS certification and can be used in formula milk powder, functional drinks, functional foods, nutritional supplements and special medical food.

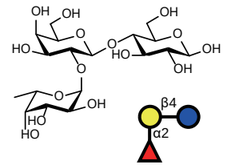
GO-2001 2’FL

M.F.: $C_{18}H_{32}O_{15}$

M.W.: 488.44

CAS No.: 41263-94-9

Package: g to kg



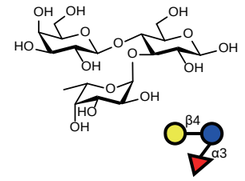
GO-2002 3’FL

M.F.: $C_{18}H_{32}O_{15}$

M.W.: 488.44

CAS No.: 41312-47-4

Package: g to kg



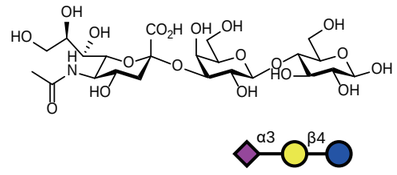
GO-2003 3’SL

M.F.: $C_{23}H_{39}NO_{19}$

M.W.: 633.55

CAS No.: 35890-38-1

Package: g to kg



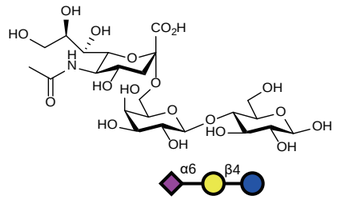
GO-2004 6’SL

M.F.: $C_{23}H_{39}NO_{19}$

M.W.: 633.55

CAS No.: 35890-39-2

Package: g to kg



Human milk oligosaccharides

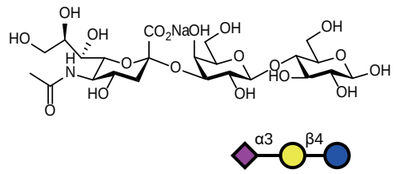
GO-2026 3'SL Sodium Salt

M.F.: $C_{23}H_{38}NNaO_{19}$

M.W.: 655.53

CAS No.: 128596-80-5

Package: g to kg



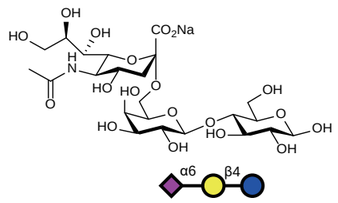
GO-2027 6'SL Sodium Salt

M.F.: $C_{23}H_{38}NNaO_{19}$

M.W.: 655.53

CAS No.: 157574-76-0

Package: g to kg



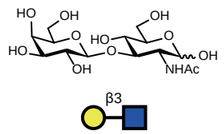
GO-2005 LNB

M.F.: $C_{14}H_{25}NO_{11}$

M.W.: 383.35

CAS No.: 50787-09-2

Package: mg to kg



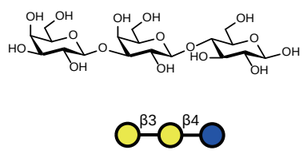
GO-2006 3'GL

M.F.: $C_{18}H_{32}O_{16}$

M.W.: 504.44

CAS No.: 32694-82-9

Package: mg to kg



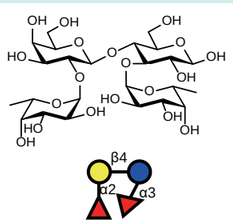
GO-2007 DFL

M.F.: $C_{24}H_{42}O_{19}$

M.W.: 634.58

CAS No.: 20768-11-0

Package: mg to kg



Human milk oligosaccharides

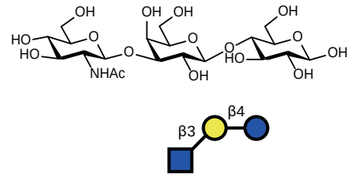
GO-2008 LNT II

M.F.: $C_{20}H_{35}NO_{16}$

M.W.: 545.49

CAS No.: 75645-27-1

Package: mg to kg



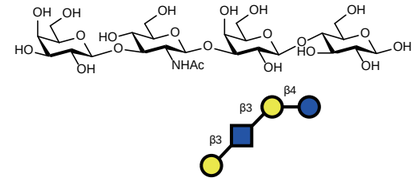
GO-2009 LNT

M.F.: $C_{26}H_{46}NO_{21}$

M.W.: 707.63

CAS No.: 14116-68-8

Package: mg to kg



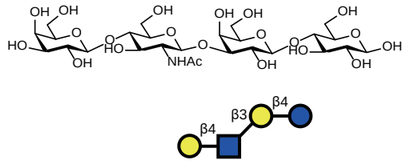
GO-2010 LNnT

M.F.: $C_{26}H_{45}NO_{21}$

M.W.: 707.63

CAS No.: 13007-32-4

Package: mg to kg



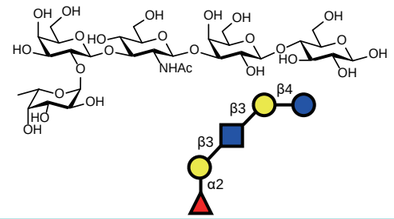
GO-2011 LNFP I

M.F.: $C_{32}H_{55}NO_{25}$

M.W.: 853.77

CAS No.: 7578-25-8

Package: mg to g



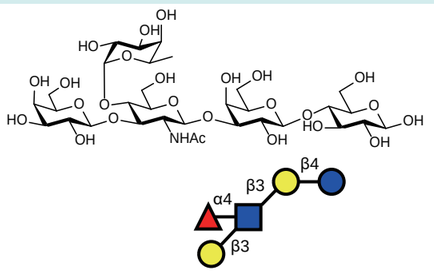
GO-2012 LNFP II

M.F.: $C_{32}H_{55}NO_{25}$

M.W.: 853.77

CAS No.: 21973-23-9

Package: mg to g



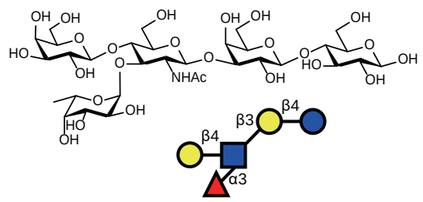
GO-2013 LNFP III

M.F.: $C_{32}H_{55}NO_{25}$

M.W.: 853.77

CAS No.: 25541-09-7

Package: mg to g



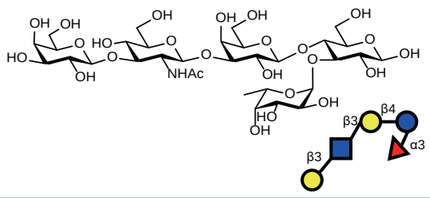
GO-2014 LNFP V

M.F.: $C_{32}H_{55}NO_{25}$

M.W.: 853.77

CAS No.: 60254-64-0

Package: mg to g



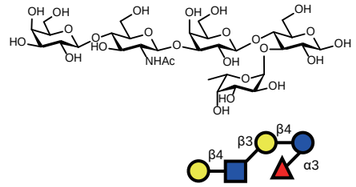
GO-2015 LNFP VI

M.F.: $C_{32}H_{55}NO_{25}$

M.W.: 853.77

CAS No.: 145876-86-4

Package: mg to g



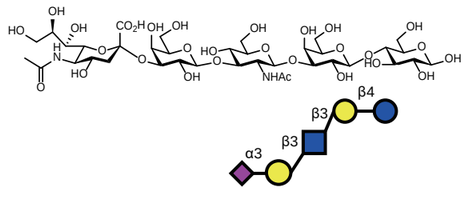
GO-2016 LSTa

M.F.: $C_{37}H_{62}N_2O_{29}$

M.W.: 998.89

CAS No.: 64003-53-8

Package: mg to g



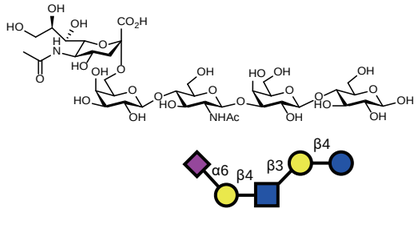
GO-2017 LSTc

M.F.: $C_{37}H_{62}N_2O_{29}$

M.W.: 998.89

CAS No.: 64003-55-0

Package: mg to g



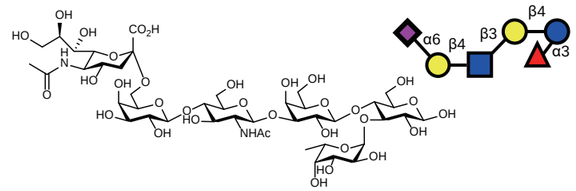
GO-2018 F-LSTc

M.F.: $C_{43}H_{72}N_2O_{33}$

M.W.: 1145.03

CAS No.: N/A

Package: mg to g



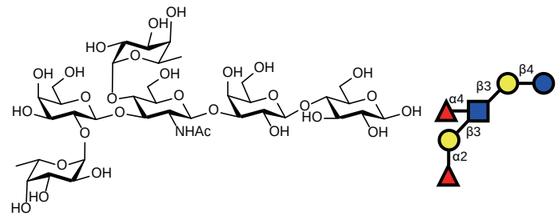
GO-2019 LNDFH I

M.F.: $C_{38}H_{65}NO_{29}$

M.W.: 999.92

CAS No.: 16789-38-1

Package: mg to g



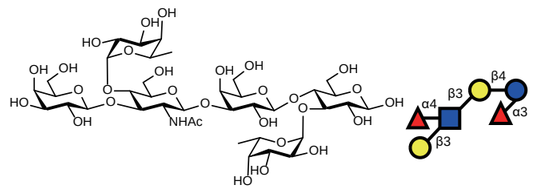
GO-2020 LNDFH II

M.F.: $C_{38}H_{65}NO_{29}$

M.W.: 999.92

CAS No.: 62258-12-2

Package: mg to g



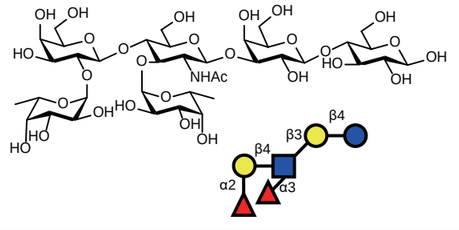
GO-2021 LNnDFH I

M.F.: $C_{38}H_{65}NO_{29}$

M.W.: 999.92

CAS No.: 62469-99-2

Package: mg to g



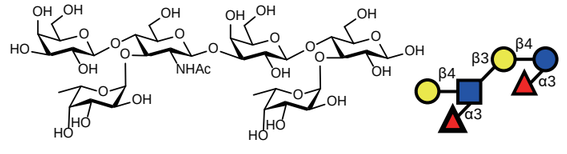
GO-2022 LNnDFH II

M.F.: $C_{38}H_{65}NO_{29}$

M.W.: 999.92

CAS No.: N/A

Package: mg to g



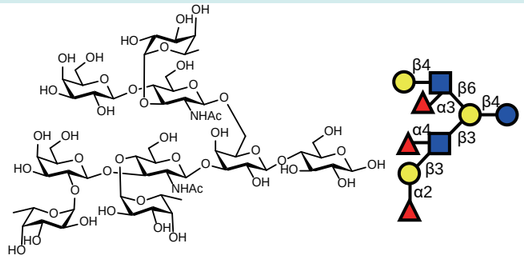
GO-2023 TF-LNH(TFLNH I)

M.F.: $C_{58}H_{98}N_2O_{43}$

M.W.: 1511.39

CAS No.: 11688-09-1

Package: mg to g



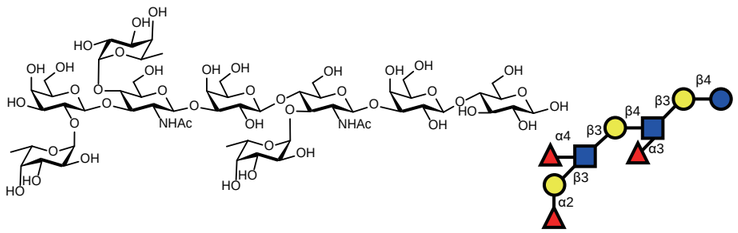
GO-2024 TF-pLNH I

M.F.: $C_{58}H_{98}N_2O_{43}$

M.W.: 1511.39

CAS No.: 120864-60-0

Package: mg to g



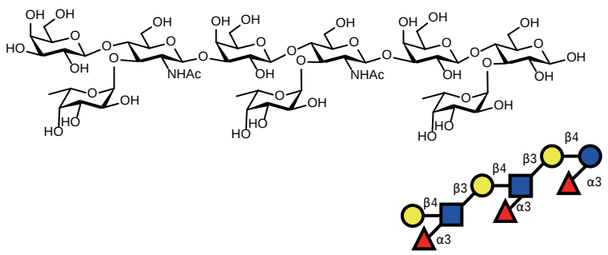
GO-2025 TF-para-LNnH

M.F.: $C_{58}H_{98}N_2O_{43}$

M.W.: 1511.39

CAS No.: N/A

Package: mg to g



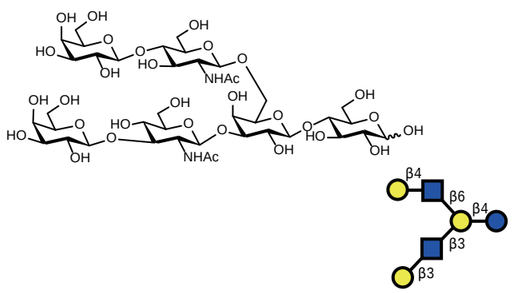
GO-2028 Lacto-N-hexaose

M.F.: $C_{40}H_{68}N_2O_{31}$

M.W.: 1072.97

CAS No.: 64003-51-6

Package: mg to g



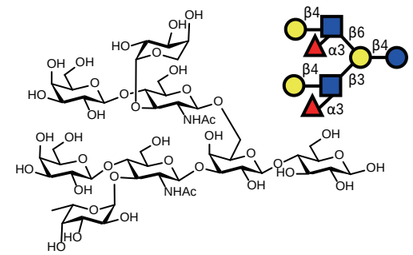
GO-2029 Difucosyllacto-N-neohexaose(DFLN)

M.F.: $C_{51}H_{86}N_2O_{39}$

M.W.: 1351.22

CAS No.: 178555-60-7

Package: mg to g



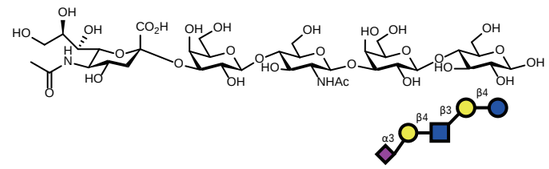
GO-2030 3'-Sialyllacto-N-neotetraose (3'-SLNnT)

M.F.: $C_{37}H_{62}N_2O_{29}$

M.W.: 998.89

CAS No.: 100789-83-1

Package: mg to g



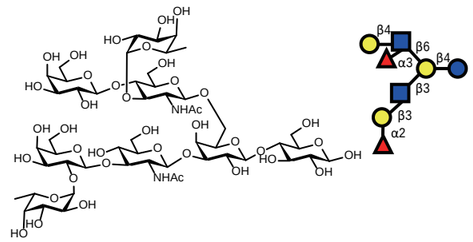
GO-2031 Difucosyllacto-N-hexaose a (DFLNH a)

M.F.: $C_{52}H_{88}N_2O_{39}$

M.W.: 1365.25

CAS No.: 64396-27-6

Package: mg to g



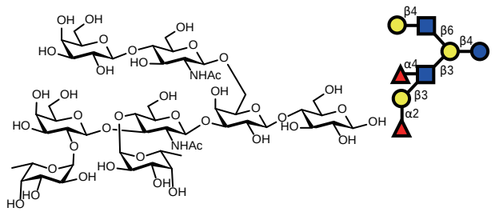
GO-2032 Difucosyllacto-N-hexaose c (DFLNH c)

M.F.: $C_{52}H_{88}N_2O_{39}$

M.W.: 1365.25

CAS No.: 443361-17-9

Package: mg to g



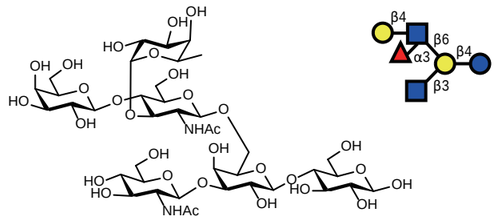
GO-2033 N/A

M.F.: $C_{40}H_{68}N_2O_{30}$

M.W.: 1056.97

CAS No.: N/A

Package: mg to g



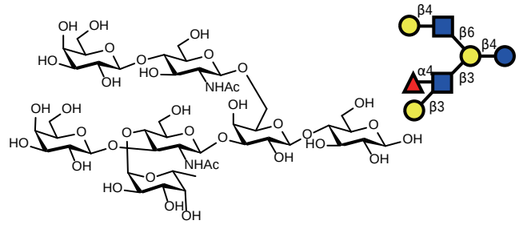
GO-2034 4120a

M.F.: $C_{46}H_{78}N_2O_{35}$

M.W.: 1219.11

CAS No.: N/A

Package: mg to g



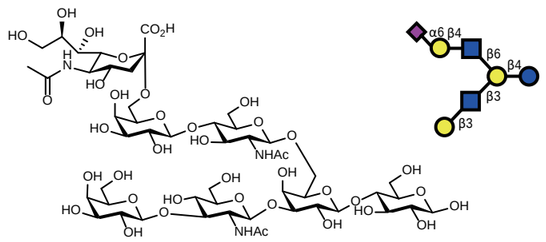
GO-2035 Sialyllacto-N-hexaose (S-LNH)

M.F.: $C_{51}H_{85}N_3O_{39}$

M.W.: 1364.22

CAS No.: N/A

Package: mg to g



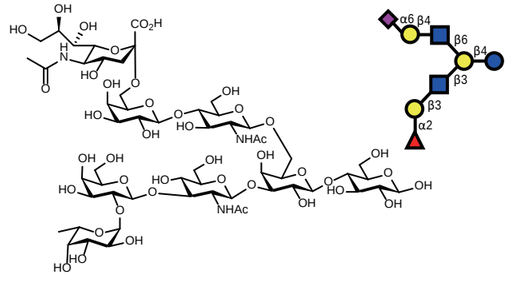
GO-2036 Fucosylsialyllacto-N-hexaose (FS-LNH)

M.F.: $C_{57}H_{95}N_3O_{43}$

M.W.: 1510.37

CAS No.: 64003-51-6

Package: mg to g



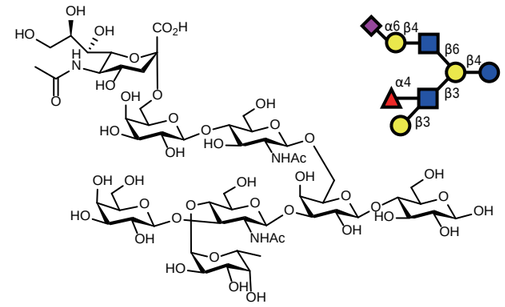
GO-2037 Fucosylsialyllacto-N-hexaose III (FS-LNH III)

M.F.: $C_{57}H_{95}N_3O_{43}$

M.W.: 1510.37

CAS No.: N/A

Package: mg to g



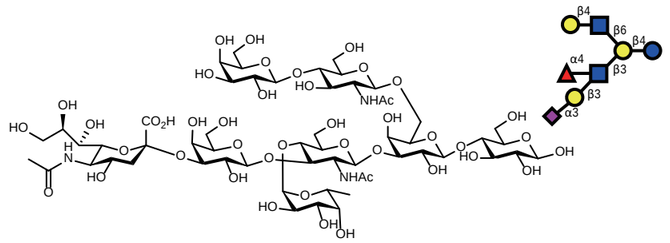
GO-2038 Fucosylsialyllacto-N-hexaose IV (FS-LNH IV)

M.F.: $C_{57}H_{95}N_3O_{43}$

M.W.: 1510.37

CAS No.: N/A

Package: mg to g



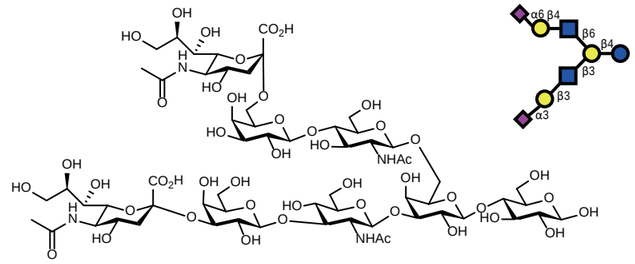
GO-2039 Disialyllacto-N-hexaose I (DS-LNH I)

M.F.: $C_{62}H_{102}N_4O_{47}$

M.W.: 1655.48

CAS No.: 137636-98-7

Package: mg to g



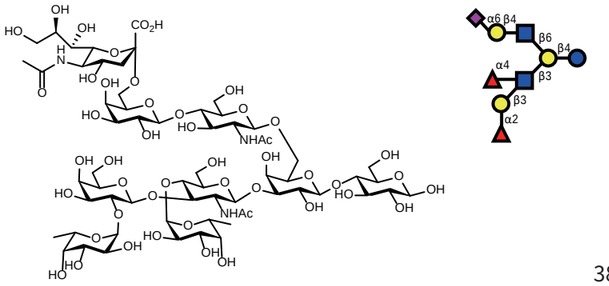
GO-2040 Difucosylsialyllacto-N-hexaose I (DFS-LNH I)

M.F.: $C_{63}H_{105}N_3O_{47}$

M.W.: 1656.51

CAS No.: N/A

Package: mg to g



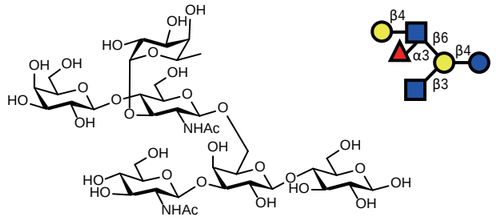
GO-2033 N/A

M.F.: $C_{40}H_{68}N_2O_{30}$

M.W.: 1056.97

CAS No.: N/A

Package: mg to g



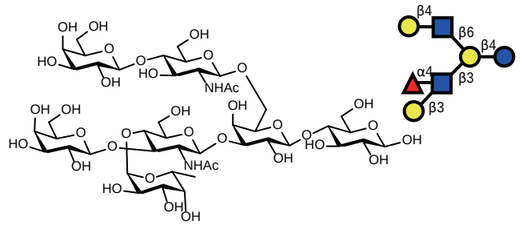
GO-2034 4120a

M.F.: $C_{46}H_{78}N_2O_{35}$

M.W.: 1219.11

CAS No.: N/A

Package: mg to g



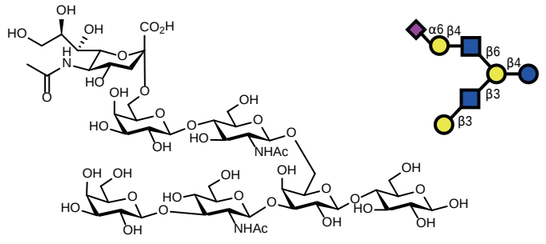
GO-2035 Sialyllacto-N-hexaose (S-LNH)

M.F.: $C_{51}H_{85}N_3O_{39}$

M.W.: 1364.22

CAS No.: N/A

Package: mg to g



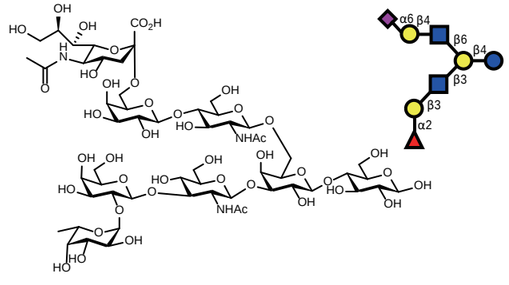
GO-2036 Fucosylsialyllacto-N-hexaose (FS-LNH)

M.F.: $C_{57}H_{95}N_3O_{43}$

M.W.: 1510.37

CAS No.: 64003-51-6

Package: mg to g



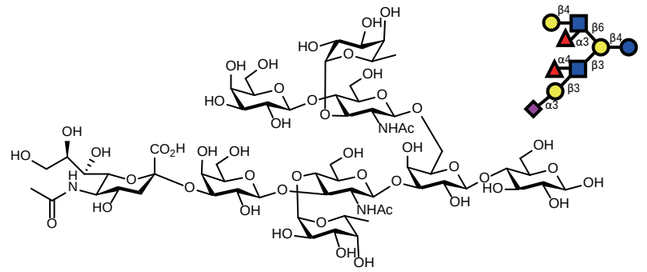
GO-2041 Difucosylsialyllacto-N-hexaose II (DFS-LNH II)

M.F.: $C_{63}H_{105}N_3O_{47}$

M.W.: 1656.51

CAS No.: N/A

Package: mg to g



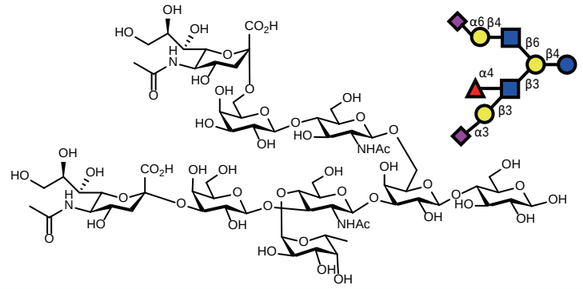
GO-2042 Fucosyldisialyllacto-N-hexaose III (FDS-LNH III)

M.F.: $C_{68}H_{112}N_4O_{51}$

M.W.: 1801.62

CAS No.: N/A

Package: mg to g



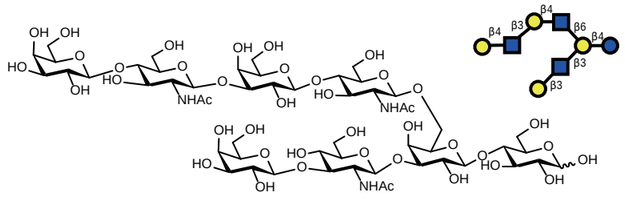
GO-2043 Lacto-N-octaose (LNO)

M.F.: $C_{54}H_{91}N_3O_{41}$

M.W.: 1438.30

CAS No.: N/A

Package: mg to g



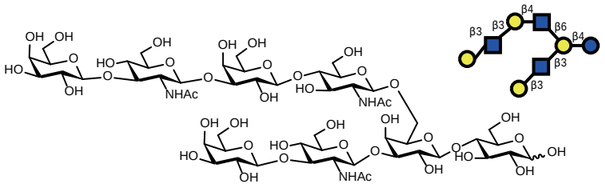
GO-2044 *iso*-Lacto-N-octaose (iLNO)

M.F.: $C_{54}H_{91}N_3O_{41}$

M.W.: 1438.30

CAS No.: N/A

Package: mg to g



Human milk oligosaccharides

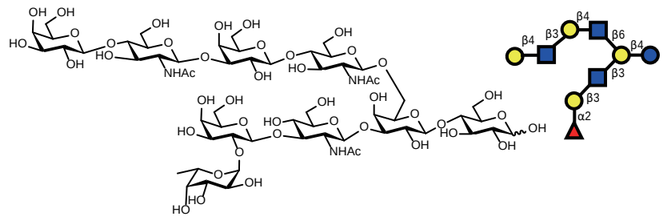
GO-2045 5130c

M.F.: $C_{60}H_{101}N_3O_{45}$

M.W.: 1584.44

CAS No.: N/A

Package: mg to g



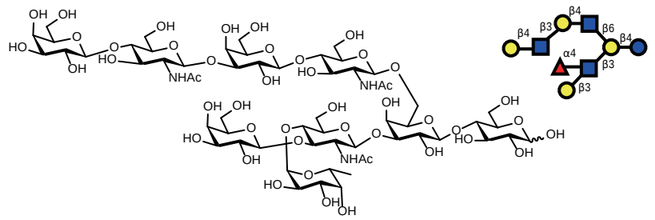
GO-2046 5130b

M.F.: $C_{60}H_{101}N_3O_{45}$

M.W.: 1584.44

CAS No.: N/A

Package: mg to g



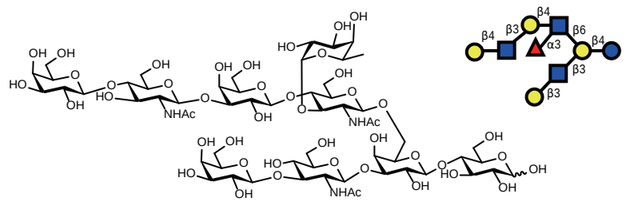
GO-2047 Fucosyllacto-N-octaose (F-LNO)

M.F.: $C_{60}H_{101}N_3O_{45}$

M.W.: 1584.44

CAS No.: N/A

Package: mg to g



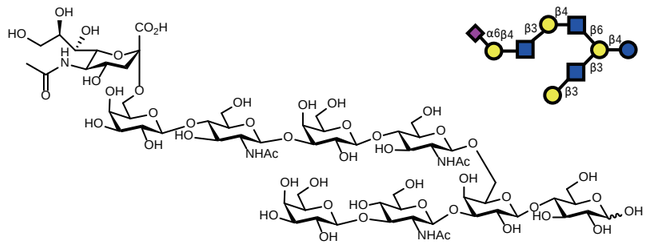
GO-2048 5031a

M.F.: $C_{65}H_{108}N_4O_{49}$

M.W.: 1729.56

CAS No.: N/A

Package: mg to g



Human milk oligosaccharides

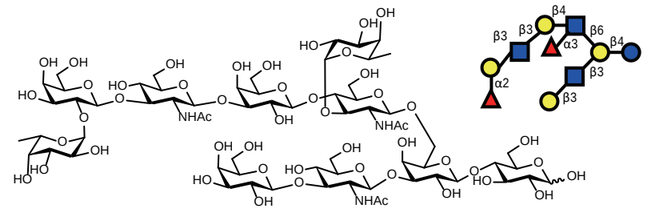
GO-2049 5030a

M.F.: $C_{66}H_{111}N_3O_{49}$

M.W.: 1730.59

CAS No.: N/A

Package: mg to g



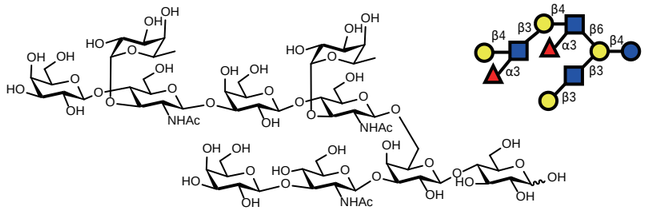
GO-2050 Difucosyllacto-N-octaose I (DF-LNO I)

M.F.: $C_{66}H_{111}N_3O_{49}$

M.W.: 1730.59

CAS No.: N/A

Package: mg to g



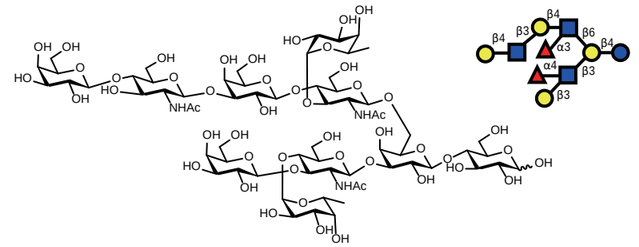
GO-2051 Difucosyllacto-N-octaose II (DF-LNO II)

M.F.: $C_{66}H_{111}N_3O_{49}$

M.W.: 1730.59

CAS No.: N/A

Package: mg to g



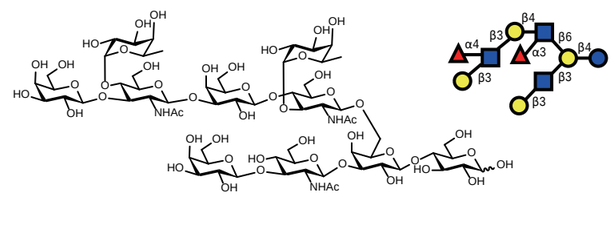
GO-2052 Difucosyl-iso-lacto-N-octaose I (DF-iLNO I)

M.F.: $C_{66}H_{111}N_3O_{49}$

M.W.: 1730.59

CAS No.: N/A

Package: mg to g



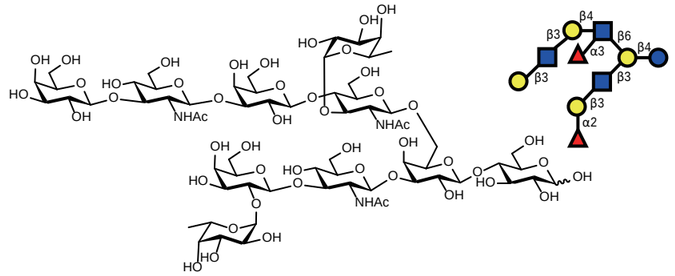
GO-2053 Difucosyl-iso-lacto-N-octaose II (DF-iLNO II)

M.F.: $C_{66}H_{111}N_3O_{49}$

M.W.: 1730.59

CAS No.: N/A

Package: mg to g



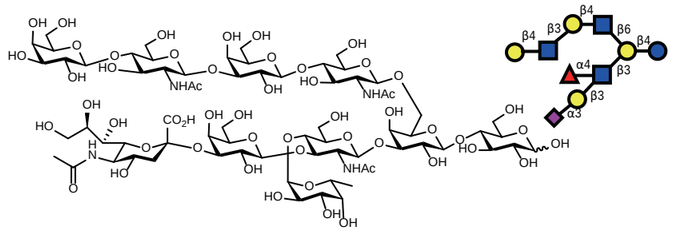
GO-2054 Fucosylsialyllacto-N-octaose (FS-LNO)

M.F.: $C_{71}H_{118}N_4O_{53}$

M.W.: 1875.70

CAS No.: N/A

Package: mg to g



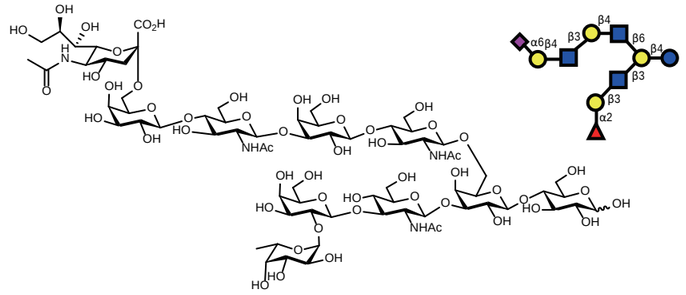
GO-2055 5131a

M.F.: $C_{71}H_{118}N_4O_{53}$

M.W.: 1875.70

CAS No.: N/A

Package: mg to g



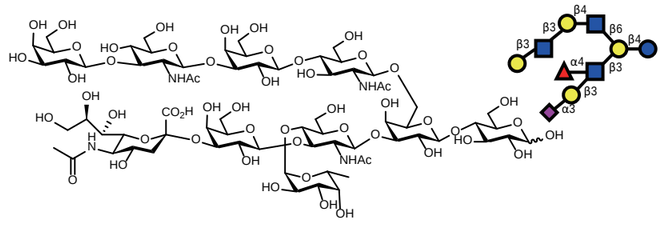
GO-2056 Fucosylsialyl-iso-lacto-N-octaose (FS-iLNO)

M.F.: $C_{71}H_{118}N_4O_{53}$

M.W.: 1875.70

CAS No.: N/A

Package: mg to g



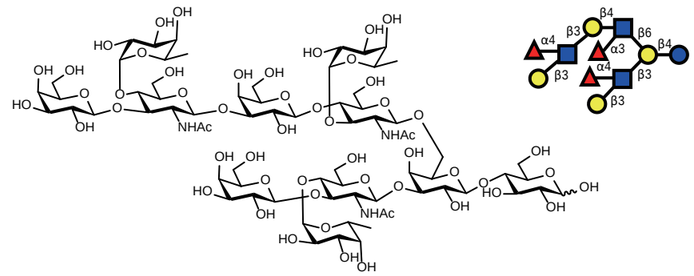
GO-2057 Trifucosyl-iso-lacto-N-octaose II (TF-iLNO II)

M.F.: $C_{72}H_{121}N_3O_{53}$

M.W.: 1876.73

CAS No.: N/A

Package: mg to g



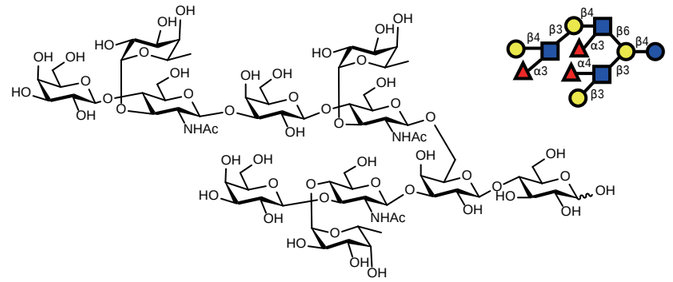
GO-2058 Trifucosyllacto-N-octaose (TF-LNO)

M.F.: $C_{72}H_{121}N_3O_{53}$

M.W.: 1876.73

CAS No.: N/A

Package: mg to g



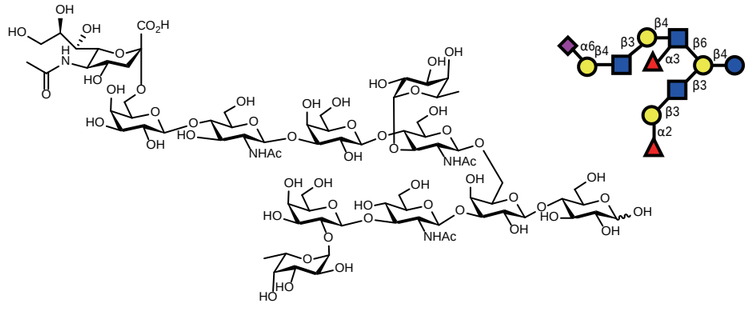
GO-2059 5231a

M.F.: $C_{77}H_{128}N_4O_{57}$

M.W.: 2021.84

CAS No.: N/A

Package: mg to g



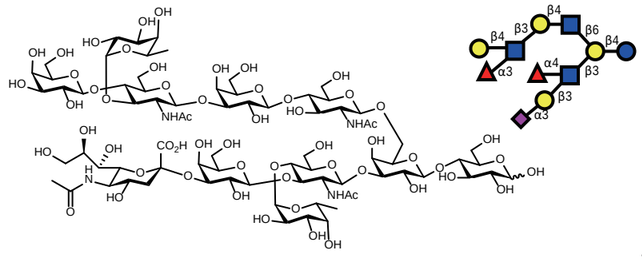
GO-2060 Difucosylsialyllacto-N-octaose (DFS-LNO)

M.F.: $C_{77}H_{128}N_4O_{57}$

M.W.: 2021.84

CAS No.: N/A

Package: mg to g



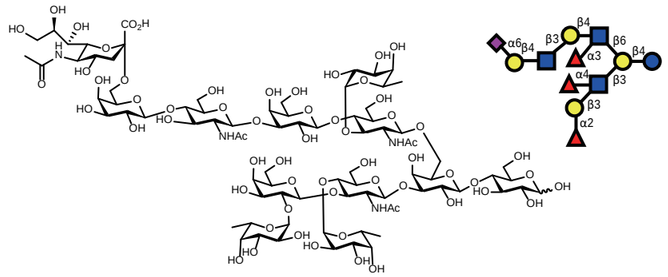
GO-2061 5331a

M.F.: $C_{83}H_{138}N_4O_{61}$

M.W.: 2167.98

CAS No.: N/A

Package: mg to g



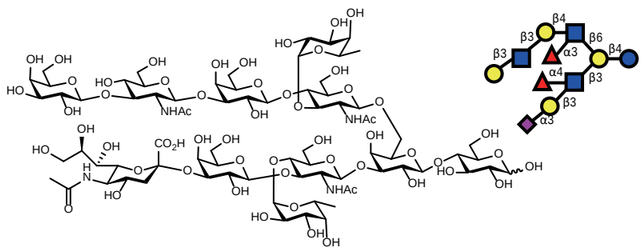
GO-2062 Difucosylsialyl-iso-lacto-N-octaose I (DFS-iLNO I)

M.F.: $C_{77}H_{128}N_4O_{57}$

M.W.: 2021.84

CAS No.: N/A

Package: mg to g



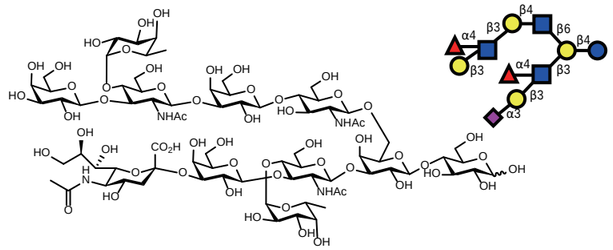
GO-2063 Difucosylsialyl-iso-lacto-N-octaose II (DFS-iLNO II)

M.F.: $C_{77}H_{128}N_4O_{57}$

M.W.: 2021.84

CAS No.: N/A

Package: mg to g



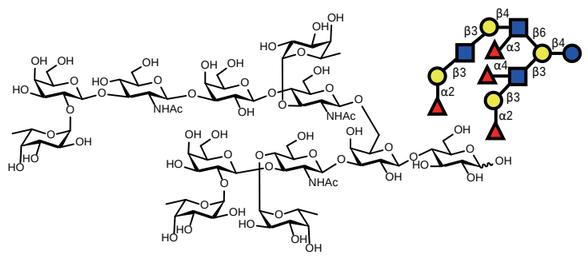
GO-2064 Tetrafucosyl-iso-lacto-N-octaose (TetraF-iLNO)

M.F.: $C_{78}H_{131}N_3O_{57}$

M.W.: 2022.87

CAS No.: N/A

Package: mg to g



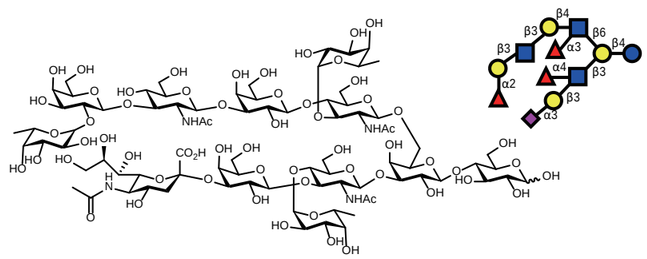
GO-2065 Trifucosylsialyl-iso-lacto-N-octaose (TFS-iLNO)

M.F.: $C_{83}H_{138}N_4O_{61}$

M.W.: 2167.98

CAS No.: N/A

Package: mg to g



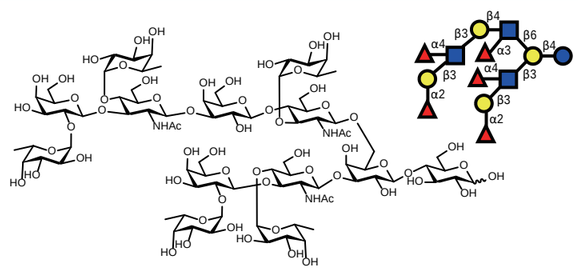
GO-2066 pentafucosyl-iso-lacto-N-octaose (PentaF-iLNO)

M.F.: $C_{84}H_{141}N_3O_{61}$

M.W.: 2169.01

CAS No.: N/A

Package: mg to g



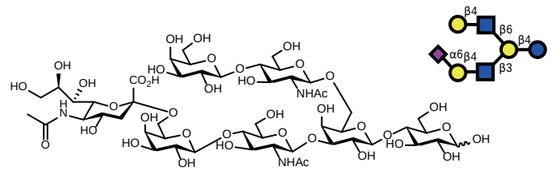
GO-2067 Sialyllacto-N-neohexaose II (S-LNnH II)

M.F.: $C_{51}H_{85}N_3O_{39}$

M.W.: 1364.22

CAS No.: N/A

Package: mg to g



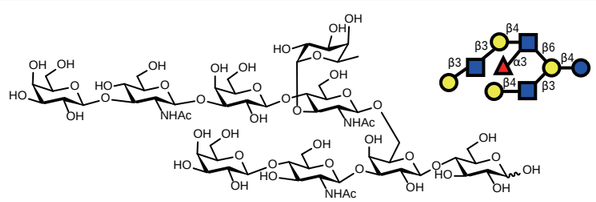
GO-2068 Fucosyllacto-N-octaose (F-LNO)

M.F.: $C_{60}H_{101}N_3O_{45}$

M.W.: 1584.44

CAS No.: N/A

Package: mg to g



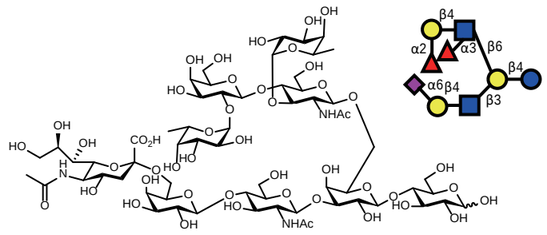
GO-2069 Difucosylsialyllacto-N-neohexaose (DFS-LNnH)

M.F.: $C_{63}H_{105}N_3O_{47}$

M.W.: 1656.51

CAS No.: N/A

Package: mg to g



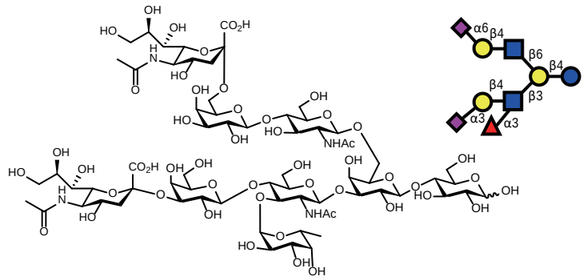
GO-2070 Disialylmonofucosyl lacto-N-hexaose (DSF-LNH)

M.F.: $C_{68}H_{112}N_4O_{51}$

M.W.: 1801.62

CAS No.: 263916-84-3

Package: mg to g



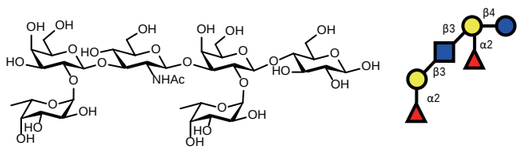
GO-2071 Lacto-N-difuco-hexaose IV (LNDFH IV)

M.F.: $C_{38}H_{65}NO_{29}$

M.W.: 999.92

CAS No.: N/A

Package: mg to g



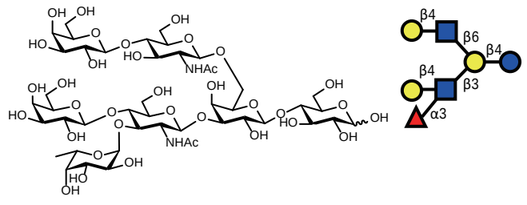
GO-2072 N/A

M.F.: $C_{46}H_{78}N_2O_{35}$

M.W.: 1219.11

CAS No.: N/A

Package: mg to g



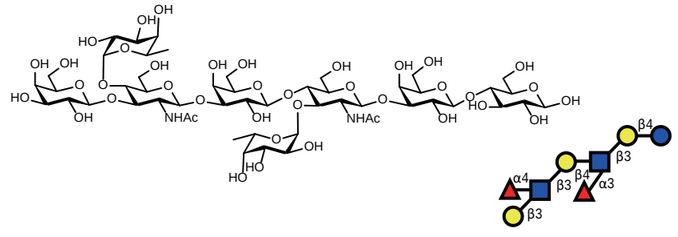
GO-2073 Difucosyl-para-lacto-N-hexaose (DF-pLNH)

M.F.: $C_{52}H_{88}N_2O_{39}$

M.W.: 1365.25

CAS No.: 64309-01-9

Package: mg to g



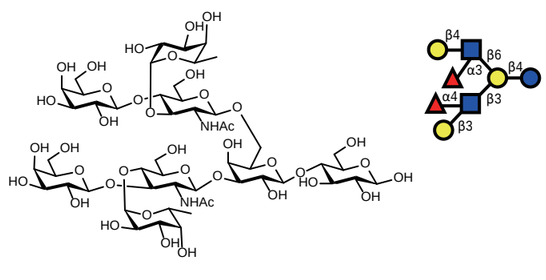
GO-2074 Difucosyllacto-N-hexaose b (DF-LNH b)

M.F.: $C_{52}H_{88}N_2O_{39}$

M.W.: 1365.25

CAS No.: 98359-76-3/210427-13-7

Package: mg to g



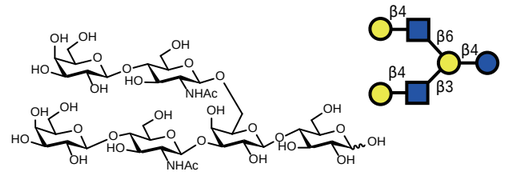
GO-2075 Lacto-N-neohexaose (LNnH)

M.F.: $C_{40}H_{68}N_2O_{31}$

M.W.: 1072.97

CAS No.: N/A

Package: mg to g



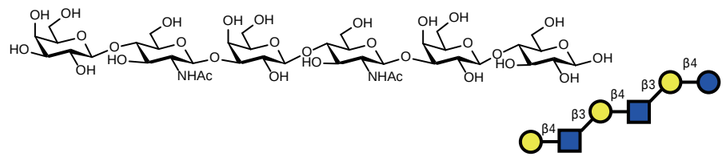
GO-3020 *para*-Lacto-N-neohexaose (*p*LNnH)

M.F.: $C_{40}H_{68}N_2O_{31}$

M.W.: 1072.97

CAS No.: N/A

Package: mg to g



Special oligosaccharides

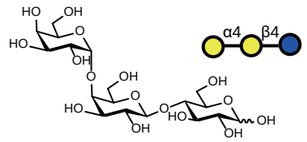
GO-3001 Gala1, 4Galb1, 4Glc

M.F.: $C_{18}H_{32}O_{16}$

M.W.: 504.44

CAS No.: N/A

Package: mg to hg



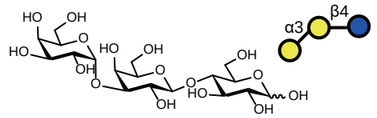
GO-3002 Gala1, 3Galb1, 4Glc

M.F.: $C_{18}H_{32}O_{16}$

M.W.: 504.44

CAS No.: N/A

Package: mg to hg



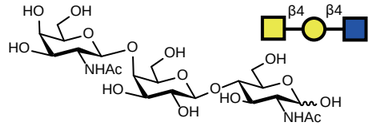
GO-3003 GalNAcb1, 4Galb1, 4GlcNAc

M.F.: $C_{22}H_{38}N_2O_{16}$

M.W.: 586.54

CAS No.: N/A

Package: mg to hg



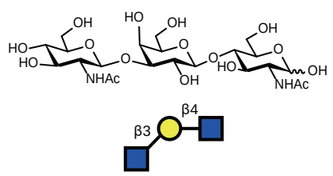
GO-3004 GlcNAcb1, 3Galb1, 4GlcNAc

M.F.: $C_{22}H_{38}N_2O_{16}$

M.W.: 586.54

CAS No.: N/A

Package: mg , g



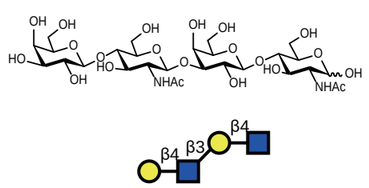
GO-3005 DiLacNAc(Galb1, 4GlcNAcb1, 3Galb1, 4GlcNAc)

M.F.: $C_{28}H_{48}N_2O_{21}$

M.W.: 748.69

CAS No.: N/A

Package: mg , g



Special oligosaccharides

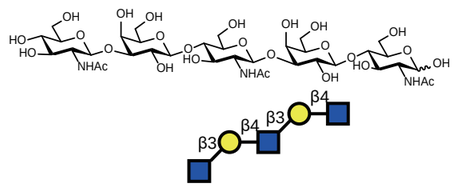
GO-3006 GlcNAcb1, 3Galb1, 4GlcNAcb1, 3Galb1, 4GlcNAc

M.F.: $C_{36}H_{61}N_3O_{26}$

M.W.: 951.88

CAS No.: N/A

Package: mg , g



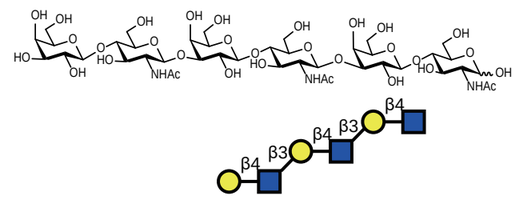
GO-3007 Galb1, 4GlcNAcb1, 3Galb1, 4GlcNAcb1, 3Galb1, 4GlcNAc

M.F.: $C_{42}H_{71}N_3O_{31}$

M.W.: 1114.02

CAS No.: N/A

Package: mg , g



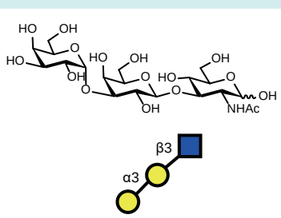
GO-3008 Gala1, 3Galb1, 3GlcNAc

M.F.: $C_{20}H_{35}NO_{16}$

M.W.: 545.49

CAS No.: N/A

Package: mg , g



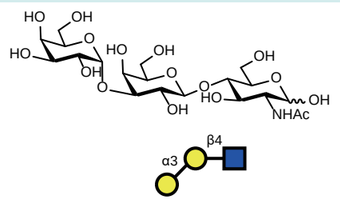
GO-3009 α-Gal Gala1,3Galb1,4GlcNAc

M.F.: $C_{20}H_{35}NO_{16}$

M.W.: 545.49

CAS No.: N/A

Package: mg , g



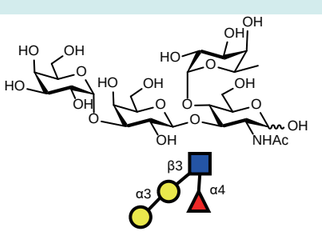
GO-3010 α-Gal LewisA
Gala1, 3Galb1, 3(Fuca1, 4)GlcNAc

M.F.: $C_{26}H_{45}NO_{20}$

M.W.: 691.63

CAS No.: N/A

Package: mg , g



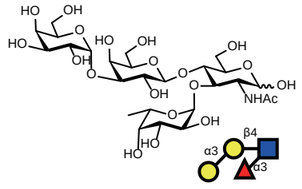
GO-3011 α-Gal LewisX Gala1,3Galb1,4(Fuca1,3)GlcNAc

M.F.: $C_{26}H_{45}NO_{20}$

M.W.: 691.63

CAS No.: N/A

Package: mg , g



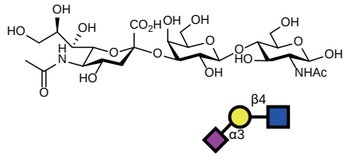
GO-3012 NeuAca2,3Galb1,4GlcNAc

M.F.: $C_{25}H_{42}N_2O_{19}$

M.W.: 674.61

CAS No.: 81693-22-3

Package: mg , g



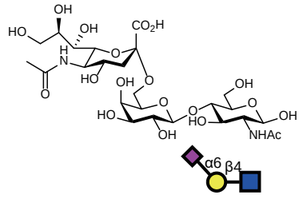
GO-3013 NeuAca2, 6Galb1, 4GlcNAc

M.F.: $C_{25}H_{42}N_2O_{19}$

M.W.: 674.61

CAS No.: N/A

Package: mg , g



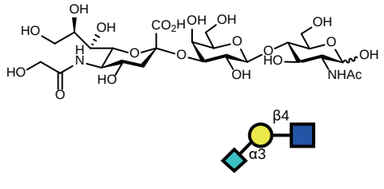
GO-3014 Neu5Gca2, 3Galb1, 4GlcNAc

M.F.: $C_{25}H_{42}N_2O_{20}$

M.W.: 690.61

CAS No.: N/A

Package: mg , g



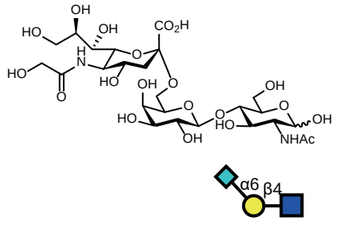
GO-3015 Neu5Gca2, 6Galb1, 4GlcNAc

M.F.: $C_{25}H_{42}N_2O_{20}$

M.W.: 690.61

CAS No.: N/A

Package: mg , g



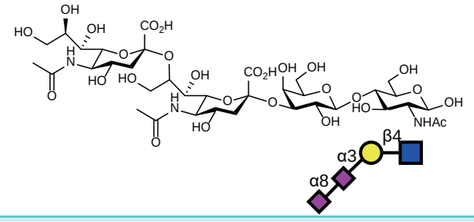
GO-3016 NeuAca2, 8NeuAca2, 3Galb1, 4GlcNAc

M.F.: $C_{36}H_{59}N_3O_{27}$

M.W.: 965.86

CAS No.: N/A

Package: mg , g



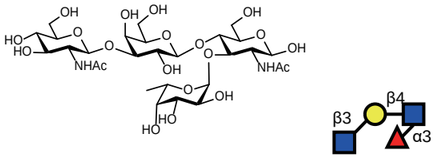
GO-3017 GlcNAcb1, 3Galb1, 4(Fuca1, 3)GlcNAc

M.F.: $C_{28}H_{48}N_2O_{20}$

M.W.: 732.69

CAS No.: N/A

Package: mg , g



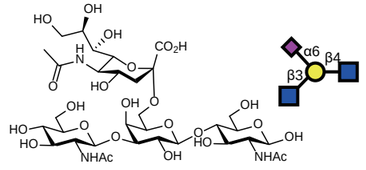
GO-3018 GlcNAcb1, 3(Neu5Aca2, 6)Galb1, 4GlcNAc

M.F.: $C_{33}H_{55}N_3O_{24}$

M.W.: 877.80

CAS No.: N/A

Package: mg , g



Blood type oligosaccharides

Many oligosaccharides linked to proteins and lipids in cell participate in many different biological processes. Various complex sugar chains with terminal Lewis epitopes can be covalently linked with proteins and lipids to form glycoconjugates or solely exist as free glycans. Those free glycans and glycoconjugates mediate the interaction between cells and the extracellular environment, which plays a vital role in many physiological and pathological processes, and has broad application in biomedicine. For example, Lex, sLex, Ley, and sLea are common tumor-associated carbohydrate antigens (TACAs), which have been used as biomarkers for clinical diagnosis of tumors and targets for immunotherapy. Furthermore, the Pk antigen is a receptor of Shiga toxin and E. coli-associated hemolytic uremic syndrome (HUS), as well as a receptor of *Streptococcus* suis.

Blood group antigen (ABH)

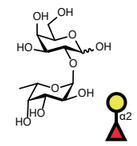
GO-4001 Blood type disaccharide H

M.F.: $C_{12}H_{22}O_{10}$

M.W.: 326.30

CAS No.: 16741-18-7

Package: mg , g



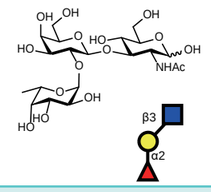
GO-4002 Blood type trisaccharide H Type I

M.F.: $C_{20}H_{35}NO_{15}$

M.W.: 529.49

CAS No.: N/A

Package: mg , g



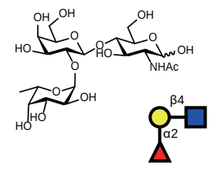
GO-4003 Blood type trisaccharide H Type II

M.F.: $C_{20}H_{35}NO_{15}$

M.W.: 529.49

CAS No.: N/A

Package: mg , g



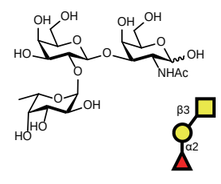
GO-4004 Blood type trisaccharide H Type III/IV

M.F.: $C_{20}H_{35}NO_{15}$

M.W.: 529.49

CAS No.: N/A

Package: mg , g



Blood group antigen (ABH)

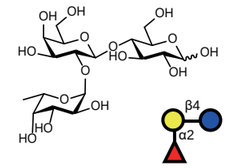
GO-4005 Blood type trisaccharide H Type VI (2'FL)

M.F.: $C_{18}H_{32}O_{15}$

M.W.: 488.44

CAS No.: N/A

Package: mg , g



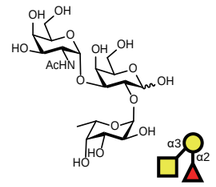
GO-4006 Blood type trisaccharide A

M.F.: $C_{20}H_{35}NO_{15}$

M.W.: 529.49

CAS No.: 49777-13-1

Package: mg , g



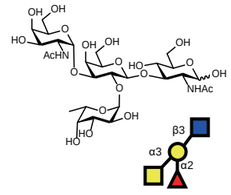
GO-4007 Blood type tetrasaccharide A Type I

M.F.: $C_{28}H_{48}N_2O_{20}$

M.W.: 732.69

CAS No.: N/A

Package: mg , g



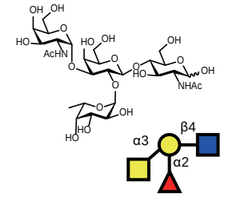
GO-4008 Blood type tetrasaccharide A Type II

M.F.: $C_{28}H_{48}N_2O_{20}$

M.W.: 732.69

CAS No.: N/A

Package: mg , g



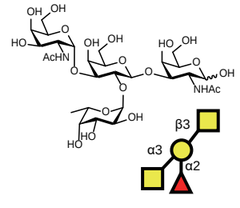
GO-4009 Blood type tetrasaccharide A Type III/IV

M.F.: $C_{28}H_{48}N_2O_{20}$

M.W.: 732.69

CAS No.: N/A

Package: mg , g



Blood group antigen (ABH)

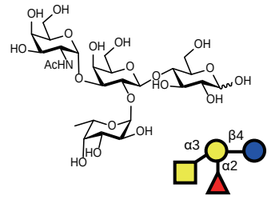
GO-4010 Blood type tetrasaccharide A Type VI

M.F.: $C_{26}H_{45}NO_{20}$

M.W.: 691.63

CAS No.: 59957-92-5

Package: mg , g



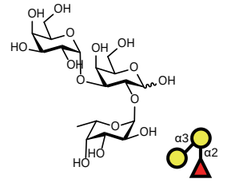
GO-4011 Blood type trisaccharide B

M.F.: $C_{18}H_{32}O_{15}$

M.W.: 488.44

CAS No.: 49777-14-2

Package: mg , g



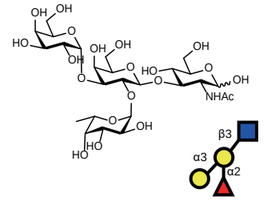
GO-4012 Blood type tetrasaccharide B Type I

M.F.: $C_{26}H_{45}NO_{20}$

M.W.: 691.63

CAS No.: N/A

Package: mg , g



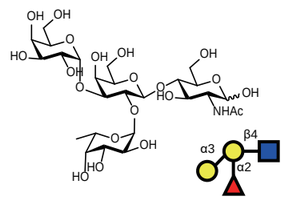
GO-4013 Blood type tetrasaccharide B Type II

M.F.: $C_{26}H_{45}NO_{20}$

M.W.: 691.63

CAS No.: 909890-21-7

Package: mg , g



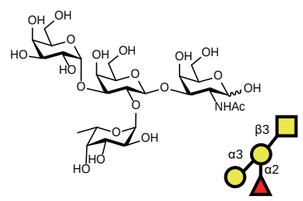
GO-4014 Blood type tetrasaccharide B Type III/IV

M.F.: $C_{26}H_{45}NO_{20}$

M.W.: 691.63

CAS No.: N/A

Package: mg , g



Blood group antigen (ABH)

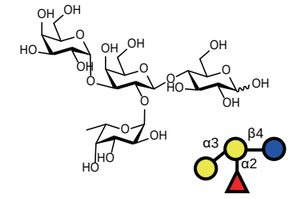
GO-4015 Blood type tetrasaccharide B Type VI

M.F.: $C_{24}H_{42}O_{20}$

M.W.: 650.58

CAS No.: N/A

Package: mg , g



Lewis antigen

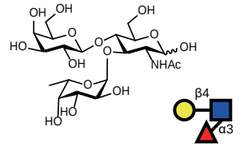
GO-4201 Lewis X (LeX) SSEA-1/CD15

M.F.: $C_{20}H_{35}NO_{15}$

M.W.: 529.49

CAS No.: 71208-06-5

Package: mg , g



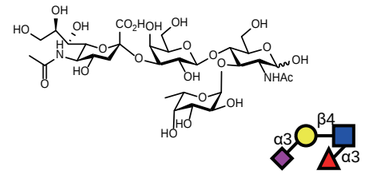
GO-4202 Sialyl Lewis X (sLe^X)

M.F.: $C_{31}H_{52}N_2O_{23}$

M.W.: 820.75

CAS No.: N/A

Package: mg , g



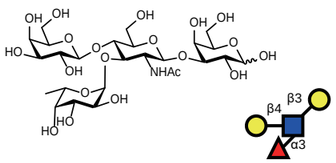
GO-4203 Lewis X (Le^X) Tetrasaccharide

M.F.: $C_{26}H_{45}NO_{20}$

M.W.: 691.63

CAS No.: N/A

Package: mg , g



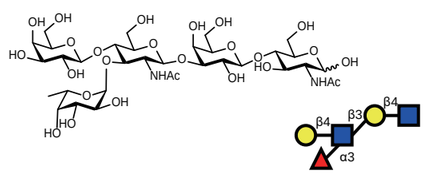
GO-4204 Lewis X (Le^X) Pentasaccharides

M.F.: $C_{34}H_{58}N_2O_{25}$

M.W.: 894.83

CAS No.: N/A

Package: mg , g



Lewis antigen

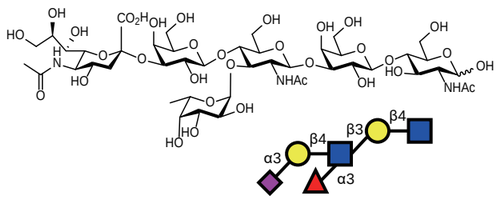
GO-4205 Sialyl Lewis X (sLe^X)-Hexasaccharide

M.F.: $C_{45}H_{75}N_3O_{33}$

M.W.: 1186.08

CAS No.: N/A

Package: mg , g



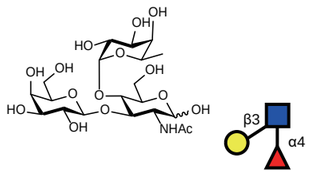
GO-4206 Lewis A (Le^a)

M.F.: $C_{20}H_{35}NO_{15}$

M.W.: 529.49

CAS No.: 56570-03-7

Package: mg , g



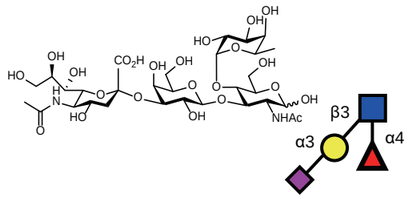
GO-4207 Sialyl Lewis A (sLe^a)

M.F.: $C_{31}H_{52}N_2O_{23}$

M.W.: 820.75

CAS No.: N/A

Package: mg , g



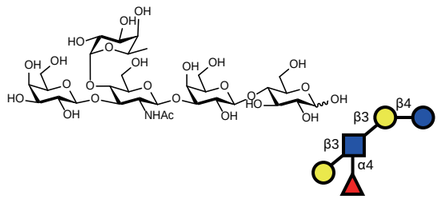
GO-4208 Lewis A (Le^a) pentasaccharide

M.F.: $C_{32}H_{55}NO_{25}$

M.W.: 853.77

CAS No.: N/A

Package: mg , g



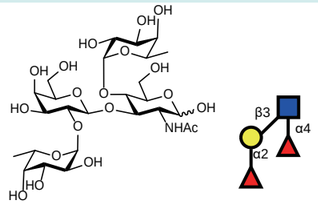
GO-4209 Lewis B (Le^b)

M.F.: $C_{26}H_{45}NO_{19}$

M.W.: 675.63

CAS No.: N/A

Package: mg , g



Lewis antigen

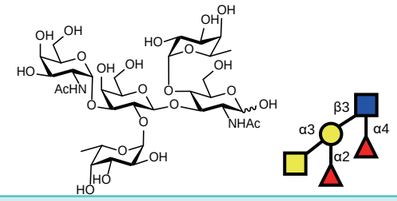
GO-4210 ALewis B (ALe^b)

M.F.: $C_{34}H_{58}N_2O_{24}$

M.W.: 878.83

CAS No.: N/A

Package: mg , g



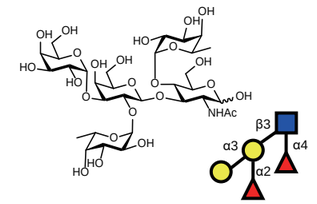
GO-4211 BLewis B (ALe^b)

M.F.: $C_{32}H_{55}NO_{24}$

M.W.: 837.78

CAS No.: N/A

Package: mg , g



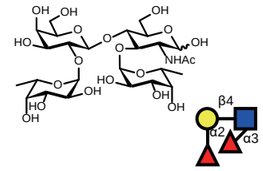
GO-4212 Lewis Y (Le^Y)

M.F.: $C_{26}H_{45}NO_{19}$

M.W.: 675.63

CAS No.: 82993-43-9

Package: mg , g



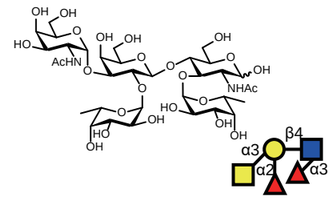
GO-4213 ALewis Y (ALe^Y)

M.F.: $C_{34}H_{58}N_2O_{24}$

M.W.: 878.83

CAS No.: N/A

Package: mg , g



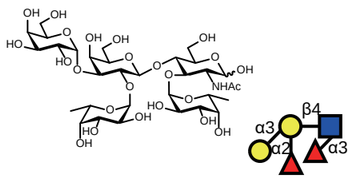
GO-4214 BLewis Y (ALe^Y)

M.F.: $C_{32}H_{55}NO_{24}$

M.W.: 837.78

CAS No.: N/A

Package: mg , g

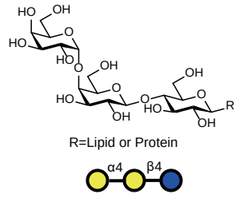


Antigen-P system antigen

GO-4301 P^{k} (Gala1,4Galb1,4GlcbR)

CAS No.: N/A

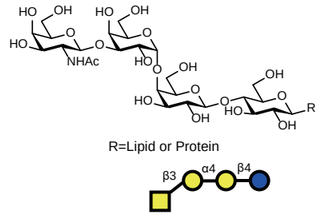
Package: mg , g



GO-4302 P (Galb1,3Gala1,4Galb1,4GlcbR)

CAS No.: N/A

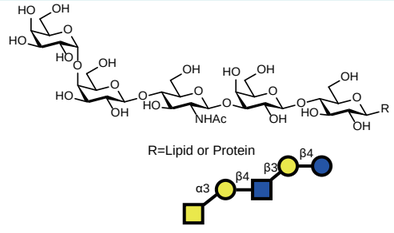
Package: mg , g



GO-4303 P1 (Gala1,4Galb1,4GlcNAcb1,3Galb1,4GlcbR)

CAS No.: N/A

Package: mg , g

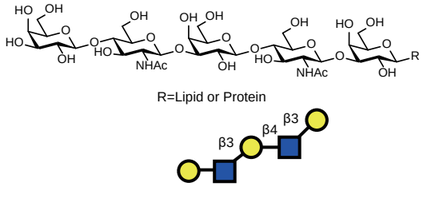


Antigen-i system antigen

GO-4351 i (Galb1,4GlcNAcb1,3Galb1,4GlcNAcb1,3GalbR)

CAS No.: N/A

Package: mg , g



Glycolipid oligosaccharides

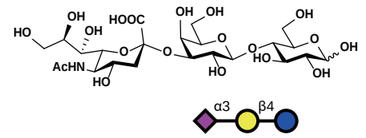
GO-4401 GM3 (3SL)

M.F.: $C_{23}H_{39}NO_{19}$

M.W.: 633.55

CAS No.: N/A

Package: mg , g



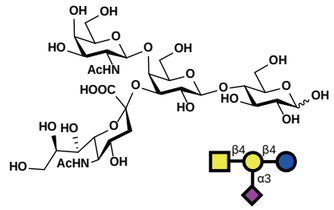
GO-4402 GM2

M.F.: $C_{31}H_{52}N_2O_{24}$

M.W.: 836.75

CAS No.: N/A

Package: mg , g



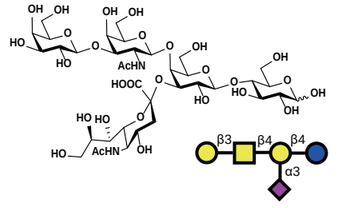
GO-4403 GM1a

M.F.: $C_{37}H_{62}N_2O_{29}$

M.W.: 998.89

CAS No.: N/A

Package: mg , g



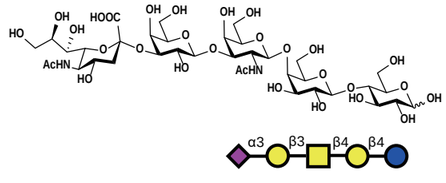
GO-4404 GM1b

M.F.: $C_{37}H_{62}N_2O_{29}$

M.W.: 998.89

CAS No.: N/A

Package: mg , g



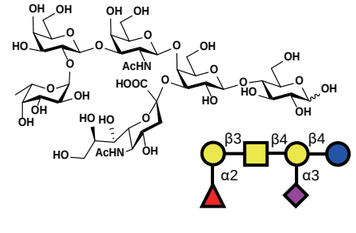
GO-4405 Fuc-GM1

M.F.: $C_{43}H_{72}N_2O_{33}$

M.W.: 1145.03

CAS No.: N/A

Package: mg , g



Glycolipid oligosaccharides

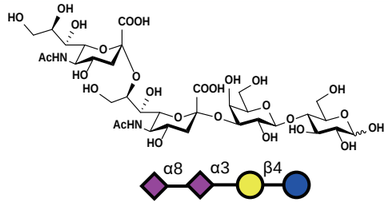
GO-4406 GD3

M.F.: $C_{34}H_{56}N_2O_{27}$

M.W.: 924.81

CAS No.: N/A

Package: mg , g



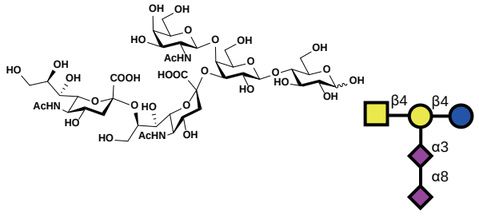
GO-4407 GD2

M.F.: $C_{42}H_{69}N_3O_{32}$

M.W.: 1128.00

CAS No.: N/A

Package: mg , g



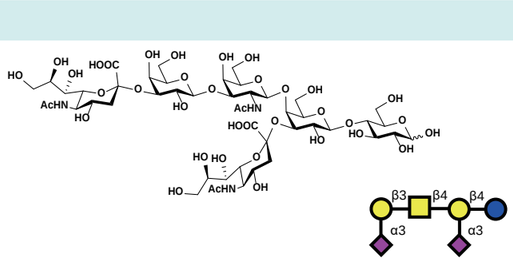
GO-4408 GD1a

M.F.: $C_{48}H_{79}N_3O_{37}$

M.W.: 1290.14

CAS No.: N/A

Package: mg , g



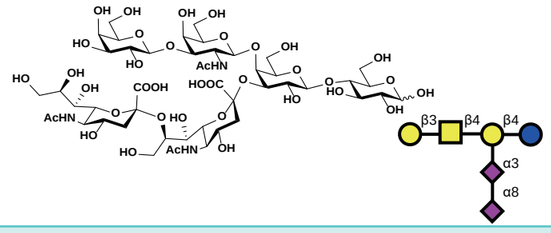
GO-4409 GD1b

M.F.: $C_{48}H_{79}N_3O_{37}$

M.W.: 1290.14

CAS No.: N/A

Package: mg , g



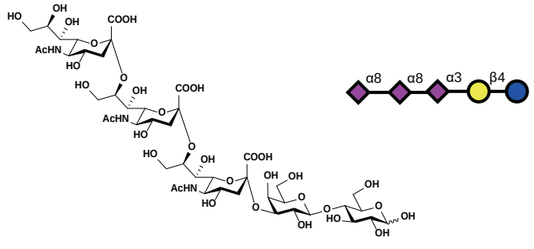
GO-4410 GT3

M.F.: $C_{45}H_{73}N_3O_{35}$

M.W.: 1216.07

CAS No.: N/A

Package: mg , g



Glycolipid oligosaccharides

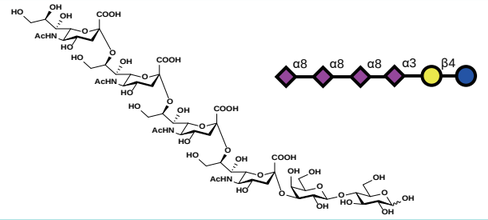
GO-4411 GQ3

M.F.: $C_{56}H_{90}N_4O_{43}$

M.W.: 1507.32

CAS No.: N/A

Package: mg , g



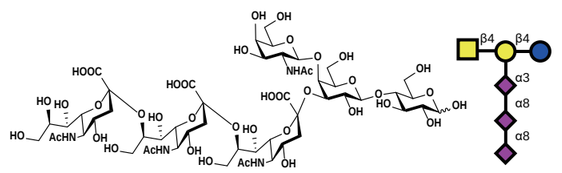
GO-4412 GT2

M.F.: $C_{53}H_{85}N_4O_{40}$

M.W.: 1418.25

CAS No.: N/A

Package: mg , g



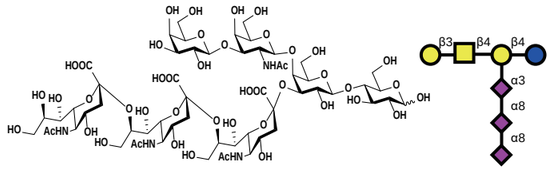
GO-4413 GT1c

M.F.: $C_{59}H_{96}N_4O_{45}$

M.W.: 1581.40

CAS No.: N/A

Package: mg , g



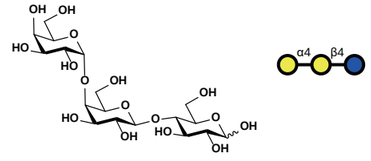
GO-4414 Gb3

M.F.: $C_{18}H_{32}O_{16}$

M.W.: 504.44

CAS No.: N/A

Package: mg , g



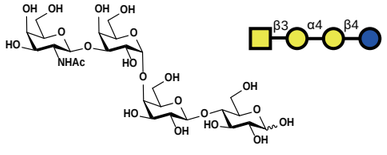
GO-4415 Gb4

M.F.: $C_{26}H_{45}NO_{21}$

M.W.: 707.63

CAS No.: N/A

Package: mg , g



Glycolipid oligosaccharides

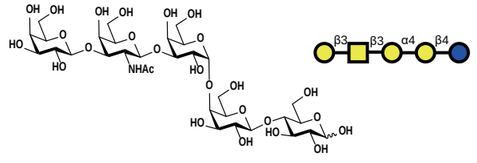
GO-4416 Gb5

M.F.: $C_{32}H_{55}NO_{26}$

M.W.: 869.77

CAS No.: N/A

Package: mg , g



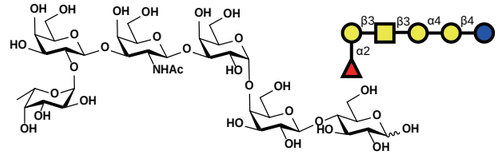
GO-4417 GloboH

M.F.: $C_{38}H_{65}NO_{30}$

M.W.: 1015.92

CAS No.: N/A

Package: mg , g



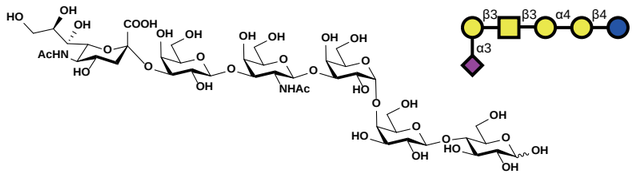
GO-4418 SSEA-4

M.F.: $C_{48}H_{79}N_3O_{37}$

M.W.: 1290.14

CAS No.: N/A

Package: mg , g



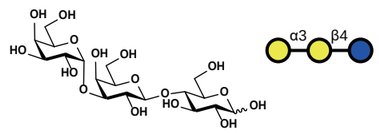
GO-4419 iGb3

M.F.: $C_{18}H_{32}O_{16}$

M.W.: 504.44

CAS No.: N/A

Package: mg , g



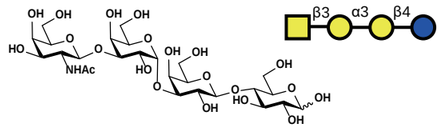
GO-4420 iGb4

M.F.: $C_{26}H_{45}NO_{21}$

M.W.: 707.63

CAS No.: N/A

Package: mg , g



Glycolipid oligosaccharides

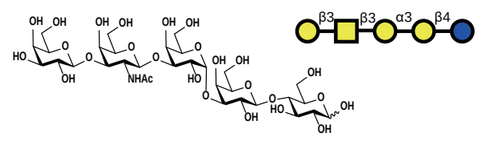
GO-4421 iGb5

M.F.: $C_{32}H_{55}NO_{26}$

M.W.: 869.77

CAS No.: N/A

Package: mg , g



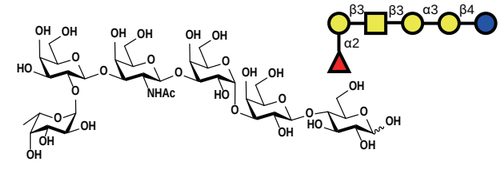
GO-4422 iGloboH

M.F.: $C_{38}H_{65}NO_{30}$

M.W.: 1015.92

CAS No.: N/A

Package: mg , g



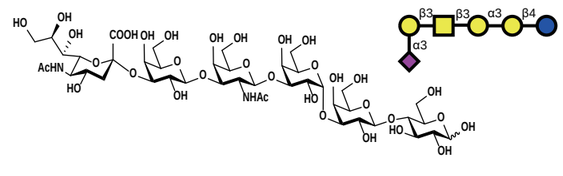
GO-4423 Sialyl-iGb5

M.F.: $C_{43}H_{72}N_2O_{34}$

M.W.: 1161.03

CAS No.: N/A

Package: mg , g



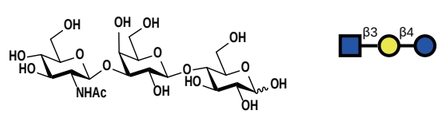
GO-4424 Lc3

M.F.: $C_{20}H_{35}NO_{16}$

M.W.: 545.49

CAS No.: N/A

Package: mg , g



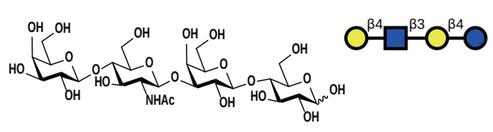
GO-4425 nLc4

M.F.: $C_{26}H_{45}NO_{21}$

M.W.: 707.63

CAS No.: N/A

Package: mg , g



Glycolipid oligosaccharides

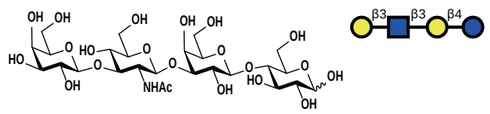
GO-4426 Lc4

M.F.: $C_{26}H_{45}NO_{21}$

M.W.: 707.63

CAS No.: N/A

Package: mg , g



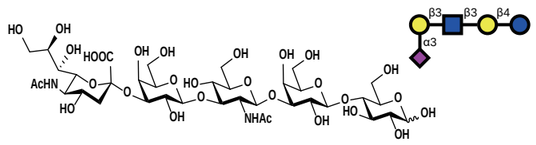
GO-4427 Sialyl-Lc4

M.F.: $C_{37}H_{62}N_2O_{29}$

M.W.: 998.89

CAS No.: N/A

Package: mg , g



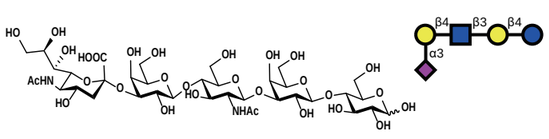
GO-4428 Sialyl-nLc4

M.F.: $C_{37}H_{62}N_2O_{29}$

M.W.: 998.89

CAS No.: N/A

Package: mg , g



Natural oligosaccharides and glycoconjugates

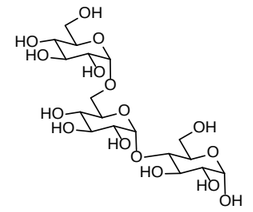
GO-6001 D-Panose

M.F.: $C_{18}H_{32}O_{16}$

M.W.: 504.44

CAS No.: 33401-87-5

Package: g to kg



Panose is widely used as an anti-fading agent, food antioxidant and anticancer sweetener for food coloring. Mass production can be achieved through enzymatic reaction.

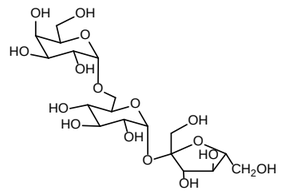
GO-6002 D-Raffinose/melitriose

M.F.: $C_{18}H_{32}O_{16}$

M.W.: 504.44

CAS No.: 512-69-6

Package: g to kg



Raffinose is one of the most well-known trisugars found in nature and is composed of galactose, fructose and glucose. Into, it is also known as melittriose and is a functional low with strong bifidobacterial actionGlycans can be extracted from plants or synthesized by enzymes.

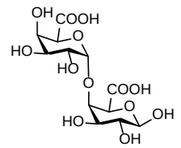
GO-6003 GalAa1,4GalA

M.F.: $C_{12}H_{18}O_{13}$

M.W.: 370.26

CAS No.: 5894-59-7

Package: g to kg



Digalacturonic acid (DGA) derived from pectin catabolism in vivo for use in enzymes (e.g., protease K) cocrystallization. It is used as a substrate in studies of galacturonic acid metabolism for identification, differentiation and characterization cohesive and exomeric galacturonase and glucosylase. DGA is used to study things like TogMNAB the transport of oligogalacturonic acid by systems such as ABC transporters.

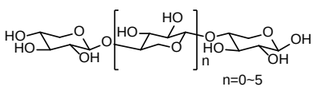
GO-6004 XOS

M.F.: $C_{15}H_{26}O_{13}$

M.W.: 414.36

CAS No.: 5894-59-7

Package: g to kg



Xylo-oligosaccharides are enzymatically hydrolyzed from xylose-rich plants and are used as antioxidants and gels in foods. It has many applications and is beneficial for diabetes, treating arteriosclerosis and reducing type 2 diabetesAnd total cholesterol in patients with colon cancer.

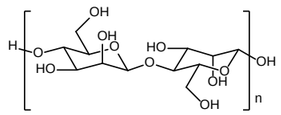
GO-6005 Mannan oligosaccharide

M.F.: $C_{12}H_{22}O_{11}$

M.W.: 342.30

CAS No.: N/A

Package: g to kg



Mannooligosaccharides have certain immunogenicity, can stimulate the immune response, and can be used as foreign antigens of the adjuvant. Mannooligosaccharides exist widely in the cell walls of many microorganisms, and are currently the main industrial mannooligosaccharides. It must be produced by enzymatic hydrolysis.

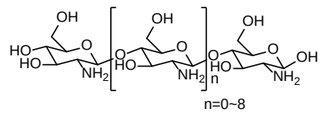
GO-6006 COS

M.F.: $C_{18}H_{35}N_3O_{13}$

M.W.: 501.49

CAS No.: N/A

Package: g to kg



Chitosan oligosaccharides are enzymatically hydrolyzed from crustaceans and are mainly used as antioxidants, anti-tumor agents and anti-microbial agents. Chitosan oligosaccharides can protect normal cells from apoptosis.

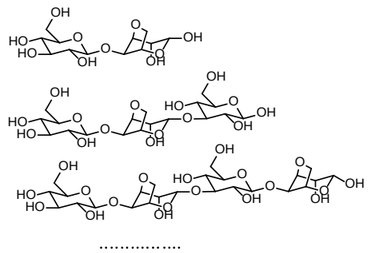
GO-6007 AOS

M.F.: $C_{54}H_{88}O_{44}$

M.W.: 1441.25

CAS No.: N/A

Package: g to kg



Agarose oligosaccharides are extracted from red algae. Agarose oligosaccharides have many physiological activities such as prebiotic, antioxidant, anti-inflammatory and liver protection, and are of great significance in food, cosmetics and pharmaceutical industries.

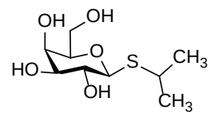
GO-6201 IPTG

M.F.: $C_9H_{18}O_5S$

M.W.: 238.30

CAS No.: 367-93-1

Package: g to kg



IPTG is a widely used compound in the field of molecular biology, often used to regulate gene expression. Its special properties make it an important tool for inducing protein expression and studying gene function. As a key tool of gene expression regulation, IPTG plays an important role in molecular biology research.

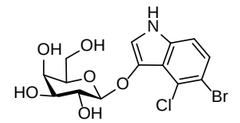
GO-6202 X-Gal

M.F.: $C_{14}H_{15}BrClNO_6$

M.W.: 408.63

CAS No.: 7240-90-6

Package: g to kg



X-Gal is a chromogenic substrate used with IPTG for blue/white colony selection.
[1] It is a soluble colorless compound that includes galactose attached to the substituted indole.
[2] In the presence of X-Gal, alpha-complementary lac+ bacteria form blue colonies carrying recombinant plasmids the bacteria form white colonies.

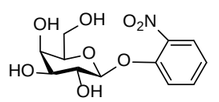
GO-6203 2-Nitrophenyl-b-D-galactopyranoside(ONPG)

M.F.: $C_{12}H_{15}NO_8$

M.W.: 301.25

CAS No.: 369-07-3

Package: g to kg



ONPG: chromogenic substrate of β-galactosidase. After digestion by β-galactosidase, o-nitrobenzene. The phenol is released, which can be quantified by colorimetric detection at 420nm, as beta-galactose measurement of glycosidase activity.

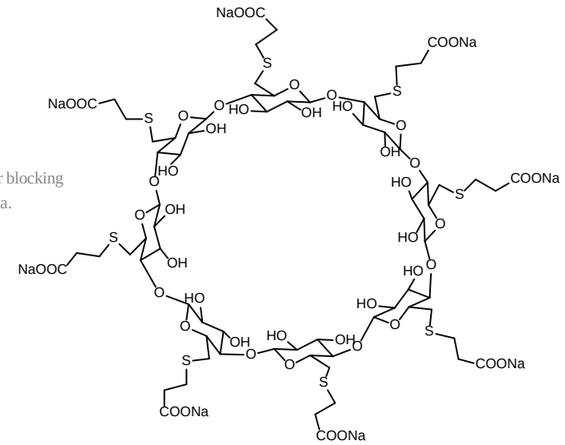
GO-6204 Sugammadex sodium

M.F.: $C_{72}H_{104}Na_8O_{48}S_8$

M.W.: 2177.97

CAS No.: 343306-79-6

Package: g to kg



Sulgamose sodium is used to reverse the routinely used neuromuscular blocking drugs rocuronium and vecuronium induced neuromuscular anesthesia.

Glycan derivatives

Azide modified carbobydrates

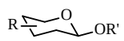
Azide modified carbohydrates can be introduced into glycoproteinsthrough the intracellular glycan biosynthesis pathway, and then covalently labeled with imaging probes or affinity probes by click chemistry. Since the majority of secreted proteins are glycoproteins, this glucose metabolism marker has been used for labeling and enrichment of secreted proteins.

Azide modified carbohydrates have the following characteristics

- Bioorthogonality—the azide group is small, non-reactive and not present in living organisms. Therefore, azide modified carbohydrates do not interfere with endogenous cellular pathways and replace their naturally occurring analogues.
- Compatibility—under normal buffer conditions, azide modified carbohydrates can be effectively reacted with phosphate compounds without auxiliary reagents such as copper or reducing agents.
- Chemo-selectivity—azide modified carbohydrates and phosphines do not react with or interfere with components of biological samples, but are efficiently coupled to each other.
- Versatility—azide modified carbohydrates labels can be used for detection, immobilization, conjugation, and bioaffinity purification.

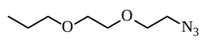
Among them, N-azidoacetylgalactosamine (GalNAz), N-azidoacetylglucosamine (GlcNAz) and *N*-azidoacetylman nosamine (ManNAz) are the most commonly used azido modified carbohydrates.The obtained Ac4ManNAz, Ac4GlcNAz and Ac4GalNAz can increase the solubility of azido sugars in organic solvents and are easier to handle.

Modified oligosaccharides



β-D-glycoside

R'= (1) Azide modified alkyl :  ;

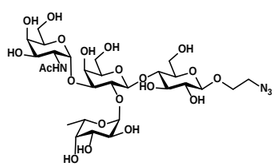
(2) PEG derivatives: 

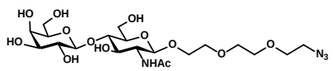
(3) Biotin

(4) Lipid

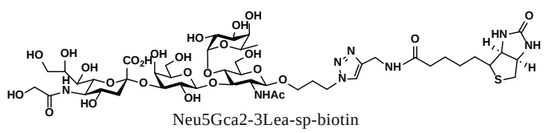
R=Monosaccharides or oligosaccharides

R'=Azidoalkyl, polyethylene glycol derivatives, lipid chains, biotin, etc.

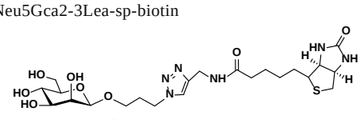




LacNAc-PEG-N_3



Neu5Gca2-3Lea-sp-biotin



Mannose-sp-biotin

Glucose derivatives

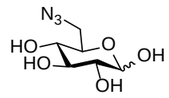
GS-0009 6-azido-6-deoxy-D-glucose

M.F.: $C_6H_{11}N_3O_5$

M.W.: 205.17

CAS No.: 20847-05-6

Package: mg to kg



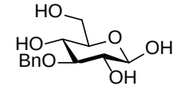
GS-4013 3-OBnGlc

M.F.: $C_{13}H_{18}O_6$

M.W.: 270.28

CAS No.: 97590-76-6

Package: mg to kg



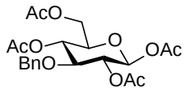
GS-4014 3-OBnAc$_4$Glc

M.F.: $C_{21}H_{26}O_{10}$

M.W.: 438.43

CAS No.: 39686-94-7

Package: mg to kg



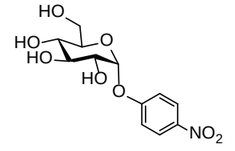
GS-4023 4-nitrophenyl-α-D-glucoside

M.F.: $C_{12}H_{15}NO_8$

M.W.: 301.25

CAS No.: 3767-28-0

Package: mg to kg



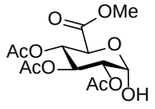
GS-4026 2,3,4-Tri-O-acetyl-α-D-glucuronic Acid Methyl Ester

M.F.: $C_{13}H_{18}O_{10}$

M.W.: 334.28

CAS No.: 72692-06-9/ 3082-95-9

Package: mg to kg



Glucose derivatives

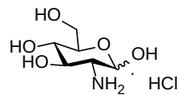
GS-4028 D-Glucosamine hydrochloride

M.F.: $C_6H_{14}ClNO_5$

M.W.: 215.63

CAS No.: 66-84-2

Package: mg to kg



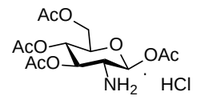
GS-4029 1,3,4,6-Tetra-O-acetyl-α-D-glucosamine HCl

M.F.: $C_{14}H_{22}ClNO_9$

M.W.: 383.78

CAS No.: 10034-20-5

Package: mg to kg



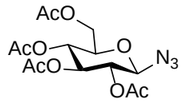
GS-0037 1-azido-2,3,4,6-Tetra-O-acetyl-β-D-glucose

M.F.: $C_{14}H_{19}N_3O_9$

M.W.: 373.32

CAS No.: 13992-25-1

Package: mg to kg



Glucosamine derivatives

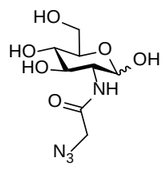
GS-0005 GlcNAz

M.F.: $C_8H_{14}N_4O_6$

M.W.: 262.22

CAS No.: 92659-90-0

Package: mg to kg



Glucosamine derivatives

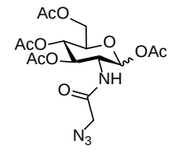
GS-0006 $Ac_4GlcNAz$

M.F.: $C_{16}H_{22}N_4O_{10}$

M.W.: 430.37

CAS No.: 98924-81-3

Package: mg to kg



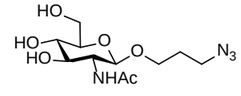
GS-0013 $GlcNAcbproN_3$

M.F.: $C_{11}H_{20}N_4O_6$

M.W.: 304.30

CAS No.: 595568-99-3

Package: mg to kg



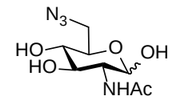
GS-0020 6-AzGlcNAc

M.F.: $C_8H_{14}N_4O_5$

M.W.: 246.22

CAS No.: 1611491-03-2

Package: mg to kg



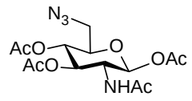
GS-0021 $Ac_3$6-AzGlcNAc

M.F.: $C_{14}H_{20}N_4O_8$

M.W.: 372.33

CAS No.: 487027-19-0

Package: mg to kg



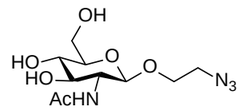
GS-0032 2-azidoethyl GlcNAc

M.F.: $C_{10}H_{18}N_4O_6$

M.W.: 290.28

CAS No.: 142072-12-6

Package: mg to kg



Glucosamine derivatives

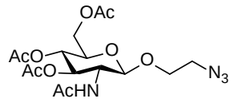
GS-0033 2-azidoethyl $Ac_3GlcNAc$

M.F.: $C_{16}H_{24}N_4O_9$

M.W.: 416.39

CAS No.: N/A

Package: mg to kg



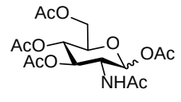
GS-0034 2-Acetamido-2-deoxy-1,3,4,6-tetra-O-acetyl-α-D-glucopyranose

M.F.: $C_{16}H_{23}NO_{10}$

M.W.: 389.36

CAS No.: 14086-90-9

Package: mg to kg



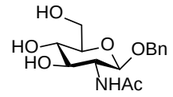
GS-0035 Benzyl-2-Acetamido-2-deoxy-β-D-glucopyranoside

M.F.: $C_{15}H_{21}NO_6$

M.W.: 311.33

CAS No.: 13343-67-4

Package: mg to kg



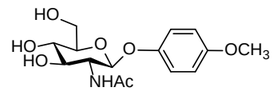
GS-0036 4'-Methoxyphenyl-2-Acetamido-2-deoxy-β-D-Glucopyranoside

M.F.: $C_{15}H_{21}NO_7$

M.W.: 327.33

CAS No.: 38229-78-6

Package: mg to kg



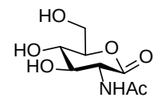
GS-4020 2-AcetaMido-2-deoxy-D-glucono-1,5-lactone

M.F.: $C_8H_{13}NO_6$

M.W.: 219.19

CAS No.: 19026-22-3

Package: mg to kg



Glucosamine derivatives

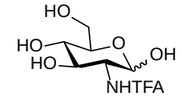
GS-4016 N-Trifluoroacetyl-D-glucosamine(GlcNTFA)

M.F.: $C_8H_{12}F_3NO_6$

M.W.: 275.18

CAS No.: 36875-26-0

Package: mg to kg



Galactose derivatives

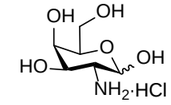
GS-4017 D(+)-$GalNH_2$·HCl

M.F.: $C_6H_{14}ClNO_5$

M.W.: 215.63

CAS No.: 1772-03-8

Package: mg to kg



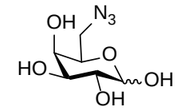
GS-0008 6-azido-6-deoxy-D-galactose

M.F.: $C_6H_{11}N_3O_5$

M.W.: 205.17

CAS No.: 66927-03-5

Package: mg to kg



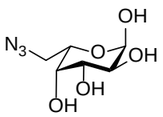
GS-0017 6-azido-6-deoxy-L-galactose

M.F.: $C_6H_{11}N_3O_5$

M.W.: 205.17

CAS No.: 70932-63-7

Package: mg to kg



Galactose derivatives

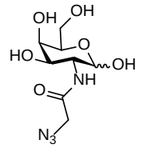
GS-0003 GalNAz

M.F.: $C_8H_{14}N_4O_6$

M.W.: 262.22

CAS No.: 869186-83-4

Package: mg to kg



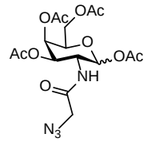
GS-0004 Ac_4GalNAz

M.F.: $C_{16}H_{22}N_4O_{10}$

M.W.: 430.37

CAS No.: 653600-56-7

Package: mg to kg



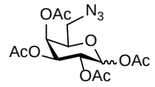
GS-0011 Ac_4-6-azido-6-deoxy-D-galactose

M.F.: $C_{14}H_{19}N_3O_9$

M.W.: 373.32

CAS No.: 629620-22-0

Package: mg to kg



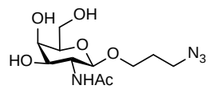
GS-0014 GalNAcbproN_3

M.F.: $C_{11}H_{20}N_4O_6$

M.W.: 304.30

CAS No.: 874120-65-7

Package: mg to kg



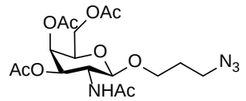
GS-0016 Ac_3GalNAcproN_3

M.F.: $C_{17}H_{26}N_4O_9$

M.W.: 430.41

CAS No.: 874120-66-8

Package: mg to kg



Galactose derivatives

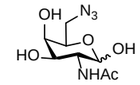
GS-0018 6-AzGalNAc

M.F.: $C_8H_{14}N_4O_5$

M.W.: 246.22

CAS No.: N/A

Package: mg to kg



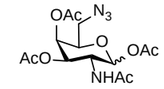
GS-0019 $Ac_3$6-AzGalNAc

M.F.: $C_{14}H_{20}N_4O_8$

M.W.: 372.33

CAS No.: 657363-19-4

Package: mg to kg



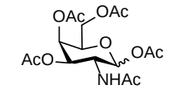
GS-4009 Ac_4GalNAc

M.F.: $C_{16}H_{23}NO_{10}$

M.W.: 389.36

CAS No.: 76375-60-5

Package: mg to kg



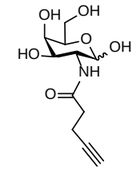
GS-1003 GalNAl

M.F.: $C_{11}H_{17}NO_6$

M.W.: 259.26

CAS No.: 2244888-87-5

Package: mg to kg



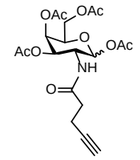
GS-1004 Ac_4GalNAl

M.F.: $C_{19}H_{25}NO_{10}$

M.W.: 427.41

CAS No.: 1810852-60-8

Package: mg to kg



Mannose derivatives

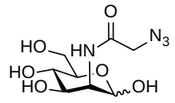
GS-0001 ManNAz

M.F.: $C_8H_{14}N_4O_6$

M.W.: 262.22

CAS No.: 361154-23-6

Package: mg to kg



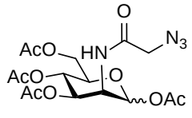
GS-0002 Ac_4ManNAz

M.F.: $C_{16}H_{22}N_4O_{10}$

M.W.: 430.37

CAS No.: 361154-30-5

Package: mg to kg



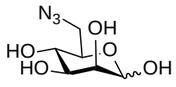
GS-0007 6-azido-6-deoxy-D-mannose

M.F.: $C_6H_{11}N_3O_5$

M.W.: 205.17

CAS No.: 316379-15-4

Package: mg to kg



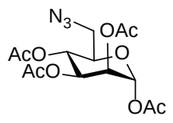
GS-0010 1,2,3,4-tetra-O-acetyl-6-azido-6-deoxy-α-D-mannose

M.F.: $C_{11}H_{20}N_4O_6$

M.W.: 304.30

CAS No.: 210170-40-4

Package: mg to kg



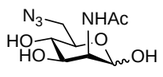
GS-0022 6-AzManNAc

M.F.: $C_8H_{14}N_4O_5$

M.W.: 246.22

CAS No.: 2555160-60-4

Package: mg to kg



Mannose derivatives

GS-0023 $Ac_3$6-AzManNAc

M.F.: $C_{14}H_{20}N_4O_8$

M.W.: 372.33

CAS No.: 487027-18-9

Package: mg to kg

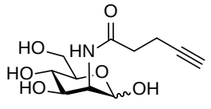
GS-1001 ManNAl

M.F.: $C_{11}H_{17}NO_6$

M.W.: 259.26

CAS No.: 935658-94-9

Package: mg to kg



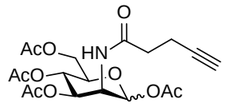
GS-1002 Ac_4ManNAl

M.F.: $C_{19}H_{25}NO_{10}$

M.W.: 427.41

CAS No.: 935658-93-8

Package: mg to kg



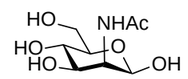
GS-4007 ManNAc

M.F.: $C_8H_{15}NO_6$

M.W.: 221.21

CAS No.: 4773-29-9

Package: mg to kg



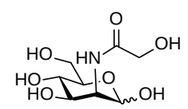
GS-4012 ManNGc

M.F.: $C_8H_{15}NO_7$

M.W.: 237.21

CAS No.: 119943-65-6

Package: mg to kg



Mannose derivatives

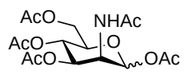
GS-4008 $Ac_4ManNAc$

M.F.: $C_{16}H_{23}NO_{10}$

M.W.: 389.36

CAS No.: 76375-61-6

Package: mg to kg



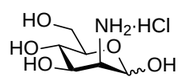
GS-4022 D-Mannosamine hydrochloride

M.F.: $C_6H_{14}ClNO_5$

M.W.: 215.63

CAS No.: 5505-63-5

Package: mg to kg



Sialic acid derivatives

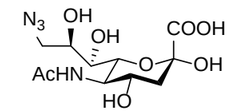
GS-2001 9-AzSiaNAc

M.F.: $C_{11}H_{18}N_4O_8$

M.W.: 334.29

CAS No.: 160555-88-4

Package: mg to kg



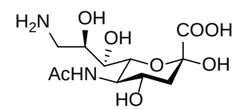
GS-2002 9-NH_2SiaNAc

M.F.: $C_{11}H_{20}N_2O_8$

M.W.: 308.29

CAS No.: 160555-89-5

Package: mg to kg



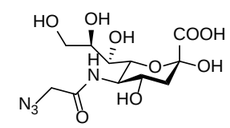
GS-2003 SiaNAz

M.F.: $C_{11}H_{18}N_4O_9$

M.W.: 350.28

CAS No.: 756823-87-7

Package: mg to kg



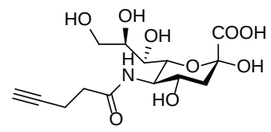
GS-2004 SiaNAl

M.F.: $C_{14}H_{21}NO_9$

M.W.: 347.32

CAS No.: 1639411-94-1

Package: mg to kg



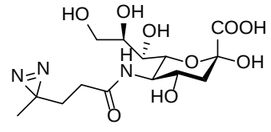
GS-2005 SiaDAz

M.F.: $C_{14}H_{23}N_3O_9$

M.W.: 377.35

CAS No.: N/A

Package: mg to kg



Sialic acid derivatives

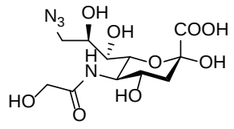
GS-2007 9-AzNeu5Gc

M.F.: $C_{11}H_{18}N_4O_9$

M.W.: 350.28

CAS No.: N/A

Package: mg to kg



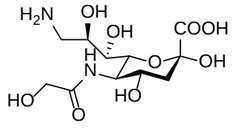
GS-2008 9-NH_2Neu5Gc

M.F.: $C_{11}H_{20}N_2O_9$

M.W.: 324.29

CAS No.: N/A

Package: mg to kg



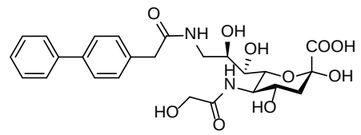
GS-2009 BPA-Neu5Gc

M.F.: $C_{25}H_{30}N_2O_{10}$

M.W.: 518.52

CAS No.: 2803296-78-6

Package: mg to kg



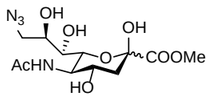
GS-2010 1-Methyl-9-azido-SiaNAc

M.F.: $C_{12}H_{20}N_4O_8$

M.W.: 348.31

CAS No.: 1919846-02-8

Package: mg to kg



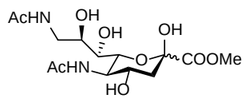
GS-2011 1-Methyl-9-N-acetyl-SiaNAc

M.F.: $C_{14}H_{24}N_2O_9$

M.W.: 364.35

CAS No.: N/A

Package: mg to kg



Sialic acid derivatives

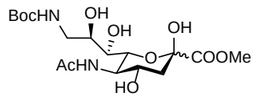
GS-2012 1-Methyl-9-N-Boc-SiaNAc

M.F.: $C_{17}H_{30}N_2O_{10}$

M.W.: 422.43

CAS No.: N/A

Package: mg to kg



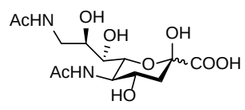
GS-2013 9-N-acetyl-SiaNAc

M.F.: $C_{13}H_{22}N_2O_9$

M.W.: 350.32

CAS No.: N/A

Package: mg to kg



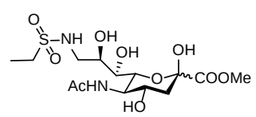
GS-2014 1-Methyl-9-ethylsulfonamido-SiaNAc

M.F.: $C_{14}H_{26}N_2O_{10}S$

M.W.: 414.43

CAS No.: N/A

Package: mg to kg



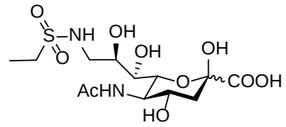
GS-2015 9-Ethylsulfonamido-SiaNAc

M.F.: $C_{13}H_{24}N_2O_{10}S$

M.W.: 400.40

CAS No.: N/A

Package: mg to kg



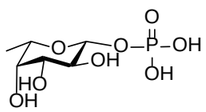
GS-3001 Fucose 1-phosphate sodium salt

M.F.: $C_6H_{13}O_8P$

M.W.: 244.14

CAS No.: 16562-58-6

Package: mg to kg



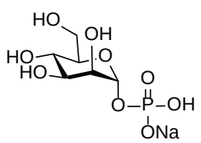
GS-3002 Mannose 1-phosphate sodium salt

M.F.: $C_6H_{12}NaO_9P$

M.W.: 282.12

CAS No.: 99749-54-9

Package: mg to kg



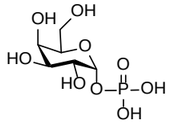
GS-3003 Galactose 1-phosphate sodium salt

M.F.: $C_6H_{13}O_9P$

M.W.: 260.13

CAS No.: 2255-14-3

Package: mg to kg



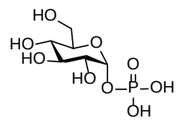
GS-3004 Glucose 1-phosphate sodium salt

M.F.: $C_6H_{13}O_9P$

M.W.: 260.13

CAS No.: 59-56-3

Package: mg to kg



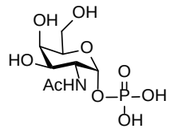
GS-3005 2-Acetamido-2-deoxyhexopyranose 1-phosphate sodium salt (GalNAc-1-P)

M.F.: $C_8H_{16}NO_9P$

M.W.: 301.19

CAS No.: 1919846-02-8

Package: mg to kg



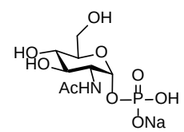
GS-3006 GlcNAc-1-P sodium salt

M.F.: $C_8H_{14}NNa_2O_9P$

M.W.: 345.15

CAS No.: 31281-59-1

Package: mg to kg



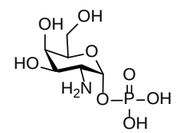
GS-3007 α-D-Galactosamine-1-phosphate sodium salt

M.F.: $C_6H_{14}NO_8P$

M.W.: 259.15

CAS No.: 75656-33-6

Package: mg to kg



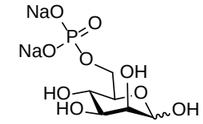
GS-3008 Mannose 6-phosphate sodium salt

M.F.: $C_6H_{11}Na_2O_9P$

M.W.: 304.10

CAS No.: 33068-18-7

Package: mg to kg



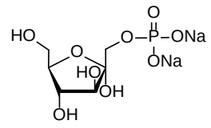
GS-3009 D-Fructose-1-dihydrogen phosphate sodium salt

M.F.: $C_6H_{11}Na_2O_9P$

M.W.: 304.10

CAS No.: 71662-09-4

Package: mg to kg



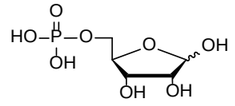
GS-3010 a-D-Ribose-5-phosphate sodium salt

M.F.: $C_5H_{11}O_8P$

M.W.: 230.11

CAS No.: 34980-65-9

Package: mg to kg



Modified oligosaccharides

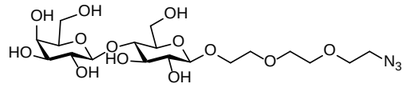
GS-0024 Lactose-PEG-N_3

M.F.: $C_{18}H_{33}N_3O_{13}$

M.W.: 499.47

CAS No.: 246855-74-3

Package: mg to kg



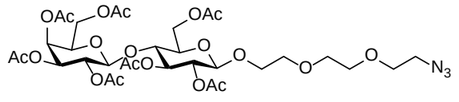
GS-0025 Ac_7Lactose-PEG-N_3

M.F.: $C_{32}H_{47}N_3O_{20}$

M.W.: 793.73

CAS No.: 153253-42-0

Package: mg to kg



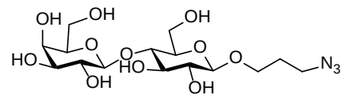
GS-0028 LactosebProN_3

M.F.: $C_{15}H_{27}N_3O_{11}$

M.W.: 425.39

CAS No.: N/A

Package: mg to kg



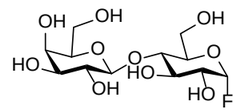
GS-4024 Lactose-F

M.F.: $C_{12}H_{21}FO_{10}$

M.W.: 344.29

CAS No.: 7792-96-3

Package: mg to kg



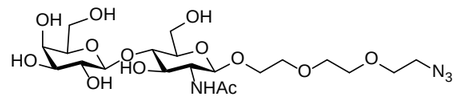
GS-0038 LacNAc-PEG-N_3

M.F.: $C_{20}H_{36}N_4O_{13}$

M.W.: 540.52

CAS No.: 1919846-02-8

Package: mg to kg



Modified oligosaccharides

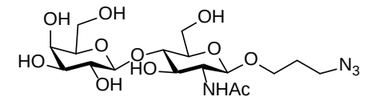
GS-0039 LacNAcbProN_3

M.F.: $C_{17}H_{30}N_4O_{11}$

M.W.: 466.44

CAS No.: 901851-43-2

Package: mg to kg



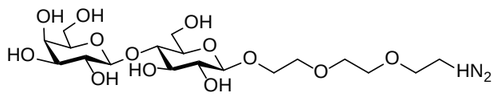
GSO-5005 Lactose PEG-NH_2

M.F.: $C_{18}H_{34}N_2O_{13}$

M.W.: 486.47

CAS No.: N/A

Package: mg to kg



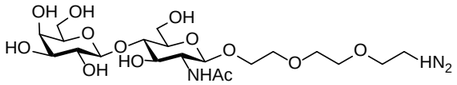
GSO-5008 LacNAc PEG-NH_2

M.F.: $C_{20}H_{37}N_3O_{13}$

M.W.: 527.52

CAS No.: 33068-18-7

Package: mg to kg



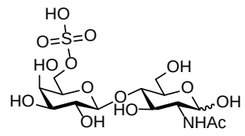
GSO-5001 (HSO4-6-)Galb1,4GlcNAc

M.F.: $C_{14}H_{25}NO_{14}S$

M.W.: 463.41

CAS No.: N/A

Package: mg to kg



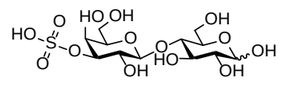
GSO-5002 (HSO4-3-)Galb1,4Glc

M.F.: $C_{12}H_{22}N_{14}S$

M.W.: 422.35

CAS No.: N/A

Package: mg to kg



Modified oligosaccharides

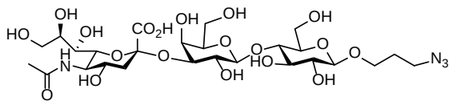
GS-0029 Neu5Aca2,3LacbProN$_3$

M.F.: $C_{26}H_{44}N_4O_{19}$

M.W.: 716.65

CAS No.: N/A

Package: mg to kg



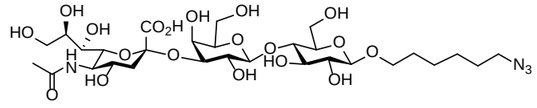
GS-0030 Neu5Aca2,3Lacb(C6)N$_3$

M.F.: $C_{29}H_{50}N_4O_{19}$

M.W.: 758.73

CAS No.: N/A

Package: mg to kg



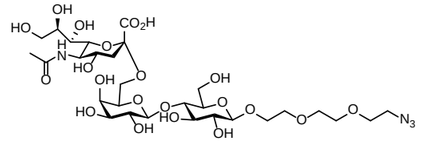
GS-0031 Neu5Aca2,6LacbPEGN$_3$

M.F.: $C_{29}H_{50}N_4O_{21}$

M.W.: 790.73

CAS No.: N/A

Package: mg to kg



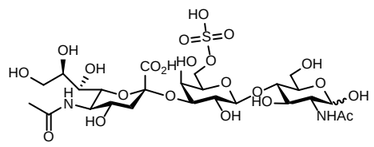
GSO-5003 Neu5Aca2,3(HSO4-6-)Galb1,4GlcNAc

M.F.: $C_{25}H_{42}N_2O_{22}S$

M.W.: 754.66

CAS No.: N/A

Package: mg to kg



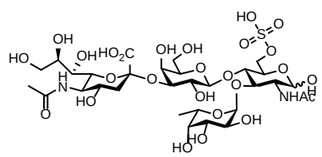
GSO-5004 Neu5Aca2,3Galb1,4(Fuca1,3)(HSO4-6-)GlcNAc

M.F.: $C_{31}H_{52}N_2O_{26}S$

M.W.: 900.81

CAS No.: N/A

Package: mg to kg



Modified oligosaccharides

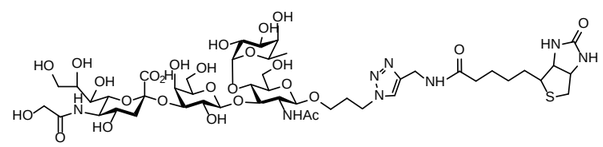
GSO-5009 Neu5Gca2,3Lea-sp-biotin

M.F.: $C_{47}H_{76}N_8O_{26}S$

M.W.: 1201.22

CAS No.: N/A

Package: mg to kg



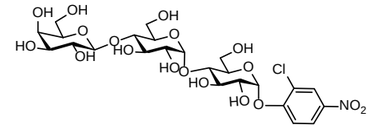
GY-001 Gal-G2-CNP

M.F.: $C_{24}H_{34}ClNO_{18}$

M.W.: 659.98

CAS No.: 157381-11-8

Package: 10 g, 100 g, 1 kg



GY-002 G3-CNP

M.F.: $C_{24}H_{34}ClNO_{18}$

M.W.: 659.98

CAS No.: 118291-90-0

Package: 10 g, 100 g, 1 kg

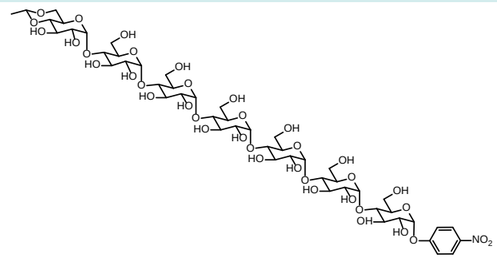
GY-003 EPS

M.F.: $C_{50}H_{77}NO_{38}$

M.W.: 1300.14

CAS No.: 96597-16-9

Package: 10 g, 100 g, 1 kg



Glycolipid

Introduction to Glycosphingolipid

Glycosphingolipid (GSL), composed of ceramide and oligosaccharide chains, is ubiquitously found in the plasma membrane of eukaryotic cells. Due to the variability of oligosaccharide and ceramide moieties, a number of GSLs was generated. They participate in and regulate apoptosis, cell proliferation, endocytosis, intracellular trafficking, cell migration, senescence and inflammation, which are crucial to tumorigenesis, cancer progression, and anticancer therapy. Therefore, GSLs are expected to become tumor diagnostic markers and immunotherapy targets.

Sphingosine, also known as nerve sphingosine, is the structural unit of various sphingolipids such as ceramide, ganglioside, glomeruloside, sulfate ester, and sphingomyelin. It has the highest content in nerve tissue and cell membrane. It has 18 carbon chains with double bond at carbon 4. It is the most abundant sphingosine in animal tissues. Lysosphingolipids inhibit the activity of protein kinase C, leading to the pathogenesis of sphingolipid disorders such as Krabbe's and Gaucher's diseases. Sphingosine can be phosphorylated by two kinases to form sphingosine-1-phosphate, which has an important functions in signaling. While sphingosine and ceramide can induce apoptosis, sphingosine-1-phosphate can promote cell survival or proliferation. Sphingosine has been shown to cause increased cytoplasmic calcium levels in cells.

In order to explore the interaction between GSLs and various pathogens, toxins, cells, etc., glycolipid chips have been formulated. Most of them are immobilized on hydrophobic materials by non-covalent binding. Previous studies have shown that the glycolipid microarray can efficiently distinguish human urine samples infected from non-infected with Mycobacterium tuberculosis.

Glycolipid

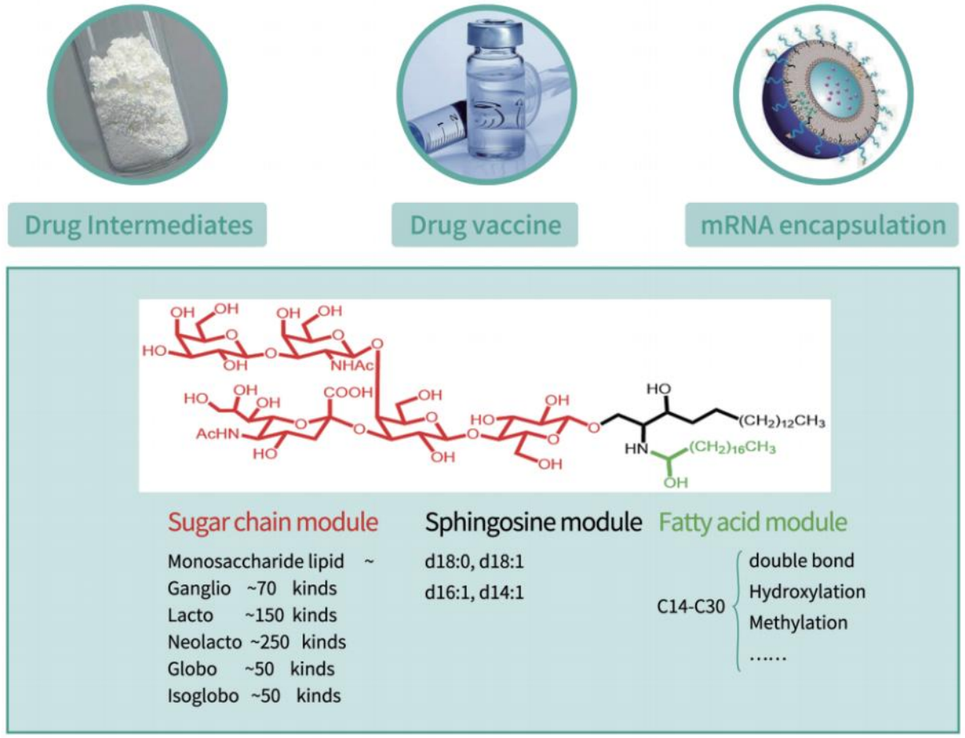
Name (Series)	Abbreviation	
Lacto	($LcOSe_4$)	Galb3GlcNAcb3Galb4Glcb1Ceramide
Lactoneo	($LcnOSe_4$)	Galb4GlcNAcb3Galb4Glcb1Ceramide
Globo	($GbOSe_4$)	GalNAcb3Gala4Galb4Glcb1Ceramide
Isoglobo	($GbiOSe_4$)	GalNAcb3Gala3Galb4Glcb1Ceramide
Ganglio	($GgOSe_4$)	Galb3GalNAcb4Galb4Glcb1Ceramide
Muco	($MucOSe_4$)	Galb3Galb3Galb4Glcb1Ceramide
Gala	($GalOSe_2$)	Gala4Galb1Ceramide
Sulfatide		3-0-SulfoGal3b1Ceramide

References

[1] Russo D, et al.. 2013. Dec; 280(24):6338-53.

[2]Zhang J, et al. 2011. Oct 15;28(1):355-61.

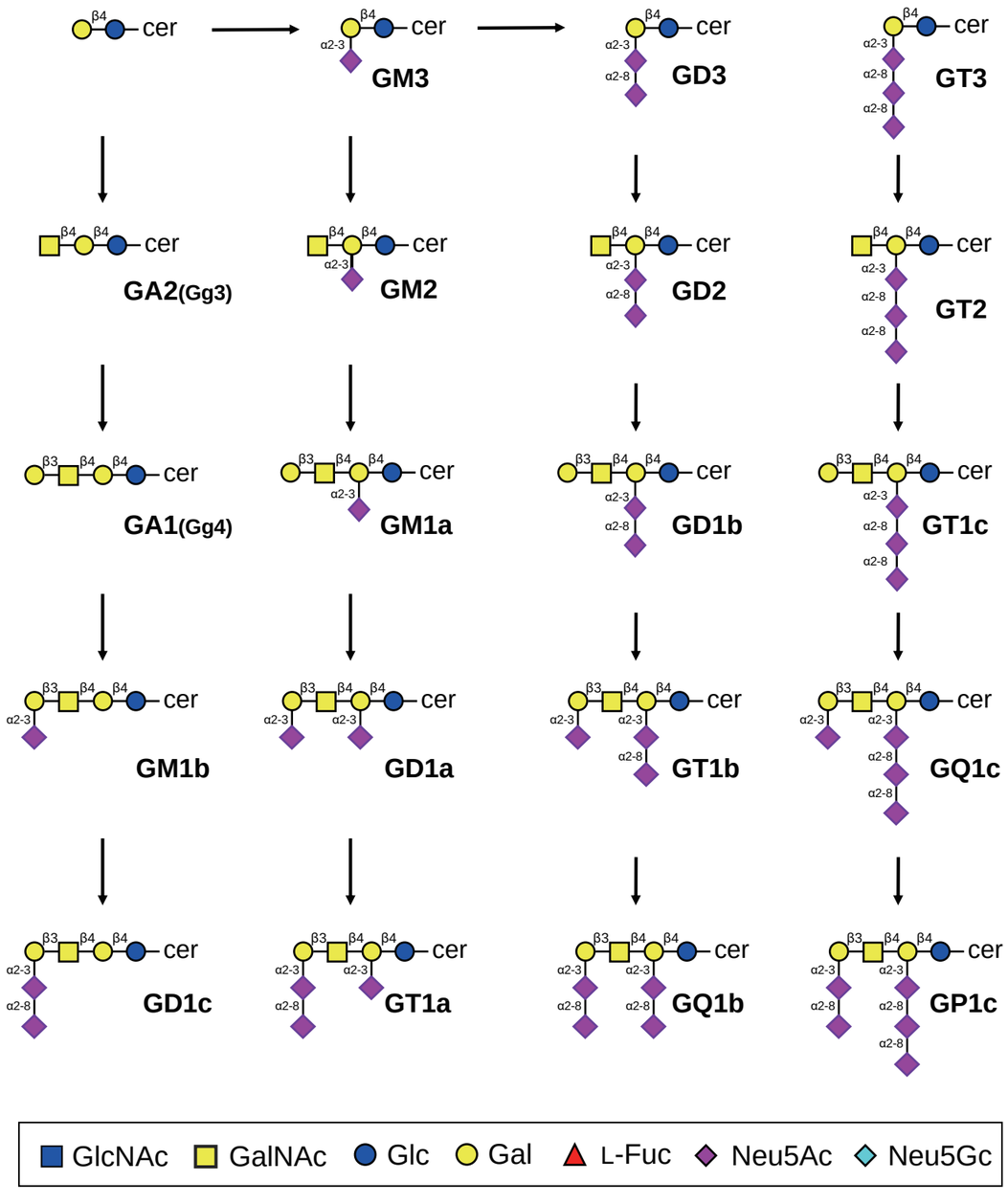
Application Scenario



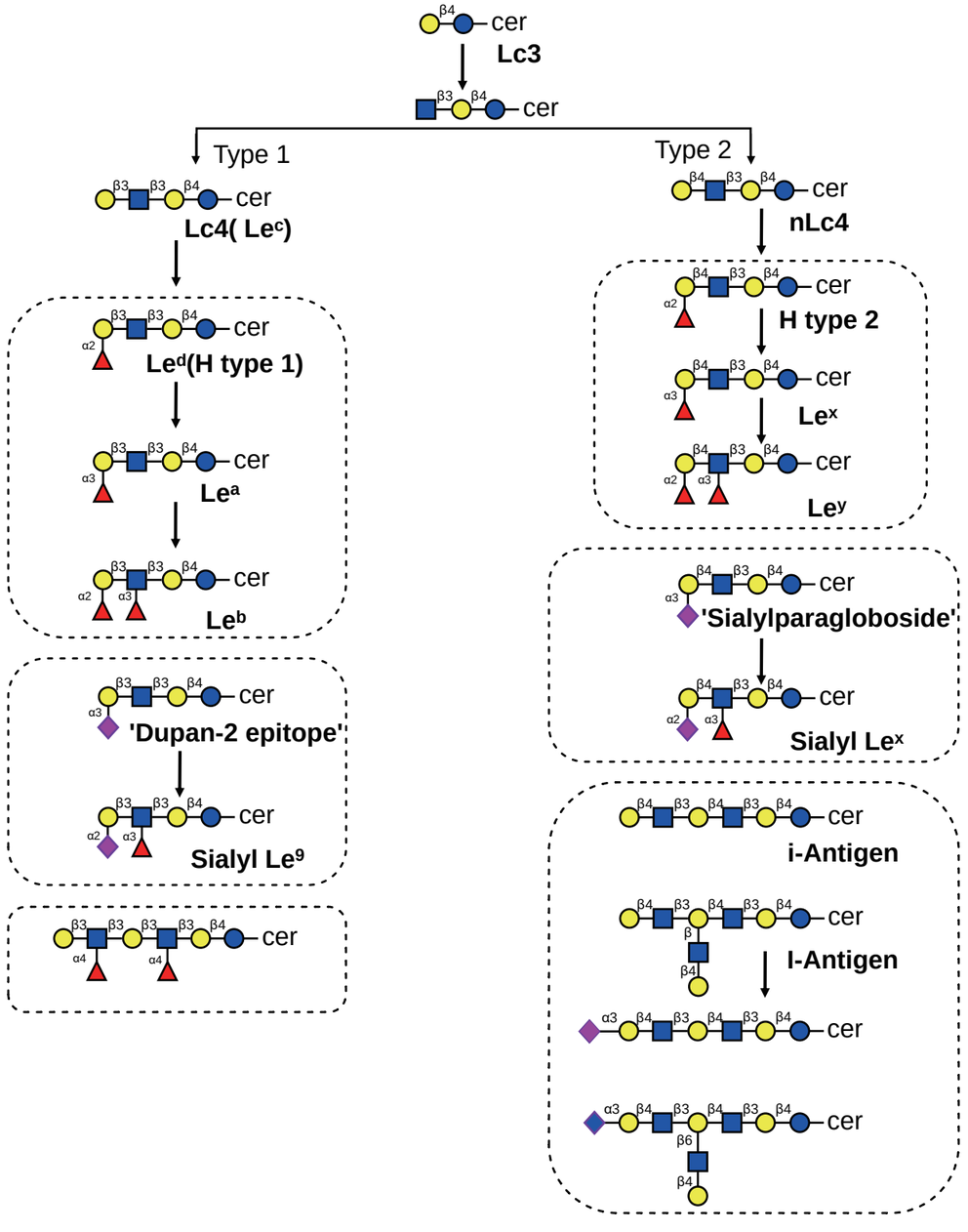
Sphingosine

Sphingosine, also known as nerve sphingosine, whose scientific name is 2-amino-4-octadecene-1,3-diol, belongs to sphingolipids. sphingosine is the structural unit of ceramide, ganglioside, glycoside, sulfate, sphingomyelin and other sphingolipids. It has the highest content in nerve tissue and cell membrane. Sphingosine, with 18 carbon chains and carbon 4 double bonds, is the most abundant sphingosine in animal tissue. Hemolytic sphingolipids inhibit the activity of protein kinase C, leading to the onset of sphingolipids such as Krabbe's disease and Gaucher's disease. Sphingosine can phosphorylate two kinases to form sphingosine 1-phosphate, which has an important signal transduction function. Although sphingosine and ceramide can induce apoptosis, sphingosine 1-phosphate can promote cell survival or proliferation. Sphingosine has been shown to increase cytoplasmic calcium levels in cells.

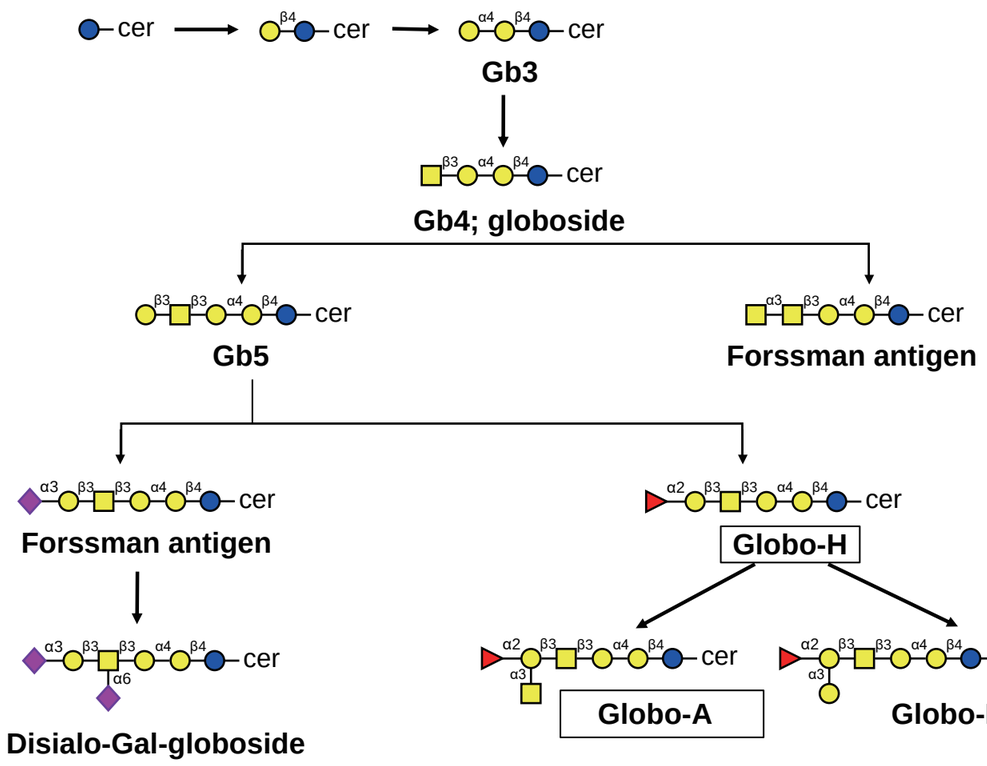
Ganglio-series GSLs



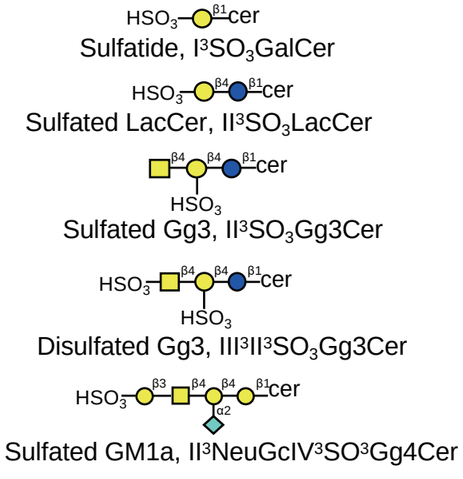
Lacto-series GSLs



Globo-series GSLs



Sulfated glycolipids.



KRN7000

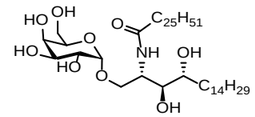
Background

KRN7000 is a synthetic glycolipid with antitumor and immunostimulatory effects. α-Galactosylceramide is a very potent NKT cell agonist that binds strongly to CD1d. The complex of α-Galactosylceramide and CD1d binds to the T-cell antigen receptor of NKT cells[1].

Reference

[1]Park JJ, etc. 2008 Jul 15;18(14):3906-9.

GL-1001



KRN7000

158021-47-7

Sphingosine series

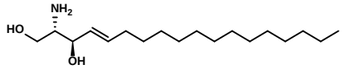
GLQ-0001 Sphingosine(d18:1)

M.F.: $C_{18}H_{37}NO_2$

M.W.: 299.5

CAS No.: 123-78-4

Package: mg to kg



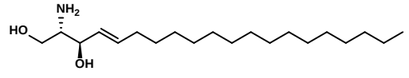
GLQ-0002 Sphingosine(d20:1)

M.F.: $C_{20}H_{41}NO_2$

M.W.: 327.55

CAS No.: 6918-49-6

Package: mg to kg



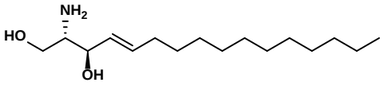
GLQ-0003 Sphingosine(d16:1)

M.F.: $C_{16}H_{33}NO_2$

M.W.: 271.45

CAS No.: 6982-9-8

Package: mg to kg



Sphingosine series

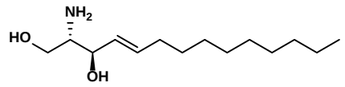
GLQ-0004 Sphingosine(d14:1)

M.F.: $C_{14}H_{29}NO_2$

M.W.: 243.39

CAS No.: 24558-60-9

Package: mg to kg



Monosaccharide series

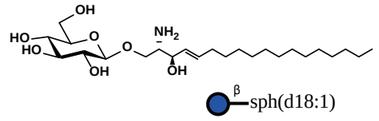
GL-0001 Glcsph d18:1 (GlcbSphingosine)

M.F.: $C_{24}H_{47}NO_7$

M.W.: 461.64

CAS No.: 52050-17-6

Package: mg to kg



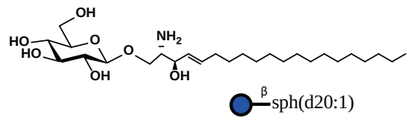
GL-0002 Glcsph d20:1 (GlcbSphingosine)

M.F.: $C_{26}H_{51}NO_7$

M.W.: 489.69

CAS No.: 108283-62-1

Package: mg to kg



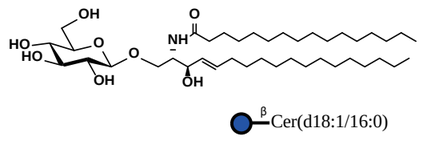
GL-1004 GlcCer d18:1/16:0 (GlcbCeramide)

M.F.: $C_{40}H_{77}NO_8$

M.W.: 700.06

CAS No.: 74365-77-8

Package: mg to kg



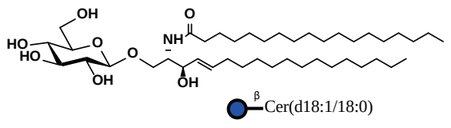
GL-1005 GlcCer d18:1/18:0 (GlcbCeramide)

M.F.: $C_{42}H_{81}NO_8$

M.W.: 728.11

CAS No.: 95119-86-1

Package: mg to kg



Monosaccharide series

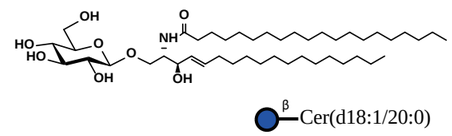
GL-1006 GlcCer d18:1/20:0 (GlcbCeramide)

M.F.: $C_{44}H_{85}NO_8$

M.W.: 756.16

CAS No.: N/A

Package: mg to kg



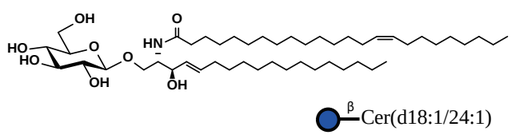
GL-1007 GlcCer d18:1/24:1 (GlcbCeramide)

M.F.: $C_{48}H_{91}NO_8$

M.W.: 810.26

CAS No.: 887907-50-8

Package: mg to kg



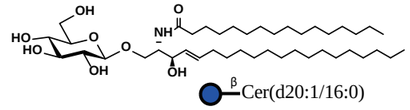
GL-1010 GlcCer d20:1/16:0 (GlcbCeramide)

M.F.: $C_{42}H_{81}NO_8$

M.W.: 728.11

CAS No.: N/A

Package: mg to kg



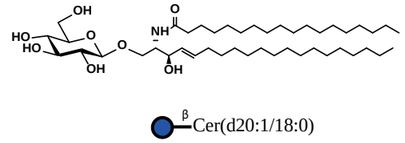
GL-1011 GlcCer d20:1/18:0 (GlcbCeramide)

M.F.: $C_{44}H_{85}NO_8$

M.W.: 756.16

CAS No.: N/A

Package: mg to kg



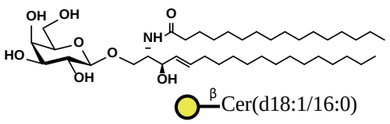
GL-1016 GalCer d18:1/16:0 (GalbCeramide)

M.F.: $C_{40}H_{77}NO_8$

M.W.: 700.06

CAS No.: 2260795-77-3

Package: mg to kg



Monosaccharide series

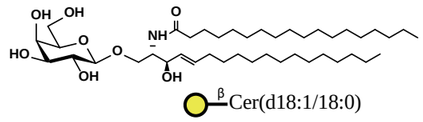
GL-1017 GalCer d18:1/18:0 (GalbCeramide)

M.F.: $C_{42}H_{81}NO_8$

M.W.: 728.11

CAS No.: N/A

Package: mg to kg



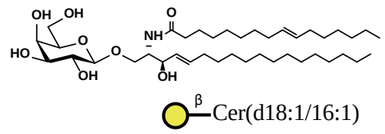
GL-1020 GalCer d18:1/16:1 (GalbCeramide)

M.F.: $C_{40}H_{75}NO_8$

M.W.: 698.04

CAS No.: N/A

Package: mg to kg



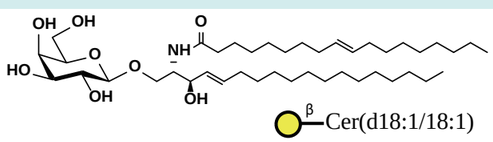
GL-1021 Galc d18:1/18:1 (GalbCeramide)

M.F.: $C_{42}H_{79}NO_8$

M.W.: 726.09

CAS No.: N/A

Package: mg to kg



Polysaccharide series

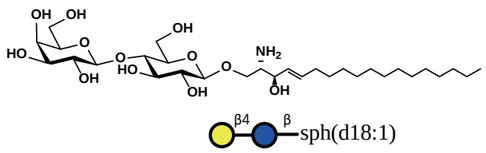
GL-0003 Lacsph d18:1 (Galb1,4GlcbSphingosine)

M.F.: $C_{30}H_{57}NO_{12}$

M.W.: 623.78

CAS No.: 109785-20-8

Package: mg to kg



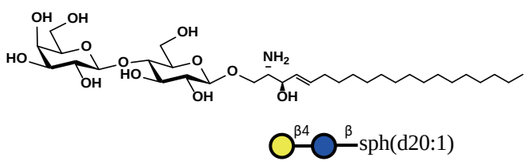
GL-0004 Lacsph d20:1 (Galb1,4GlcbSphingosine)

M.F.: $C_{32}H_{61}NO_{12}$

M.W.: 651.84

CAS No.: N/A

Package: mg to kg



Polysaccharide series

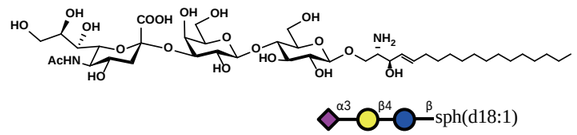
GL-0005 GM3sph d18:1 (Neu5Aca2,3Galb1,4GlcbSphingosine)

M.F.: $C_{41}H_{74}N_2O_{20}$

M.W.: 915.04

CAS No.: N/A

Package: mg to kg



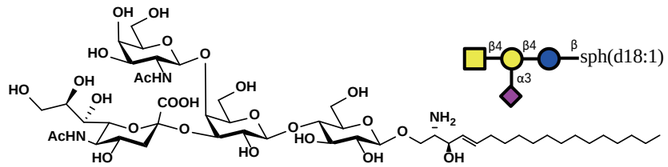
GL-0007 GM2sph d18:1 (GalNAcb1,4(Neu5Aca2,3)Galb1,4GlcbSphingosine)

M.F.: $C_{49}H_{87}N_3O_{25}$

M.W.: 1118.23

CAS No.: N/A

Package: mg , g



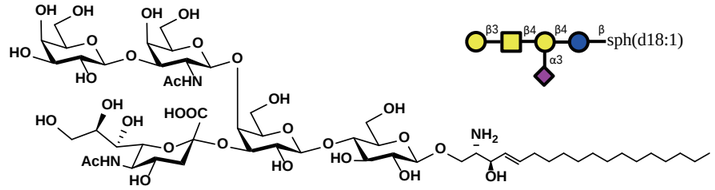
GL-0009 GM1asph d18:1 (Galb1,3GalNAcb1,4(Neu5Aca2,3)Galb1,4GlcbSphingosine)

M.F.: $C_{55}H_{97}N_3O_{30}$

M.W.: 1280.37

CAS No.: N/A

Package: mg to kg



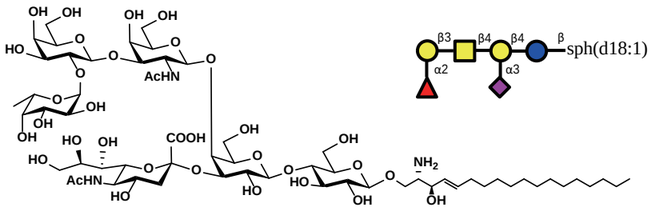
GL-0013 FucGM1sph d18:1 ((Fuca1,2)Galb1,3GalNAcb1,4(Neu5Aca2,3)Galb1,4GlcbSphingosine)

M.F.: $C_{61}H_{107}N_3O_{34}$

M.W.: 1426.51

CAS No.: N/A

Package: mg to kg



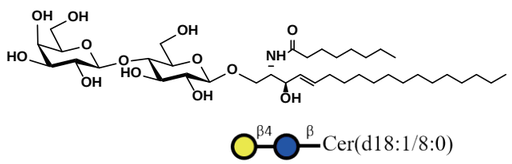
GL-2001 LacCer d18:1/8:0 (Galb1,4GlcbCeramide)

M.F.: $C_{38}H_{71}NO_{13}$

M.W.: 749.98

CAS No.: 384842-72-2

Package: mg to kg



Polysaccharide series

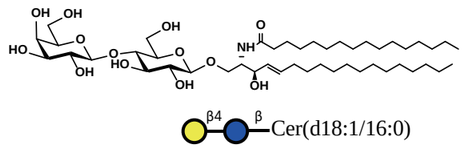
GL-2003 LacCer d18:1/16:0 (Galb1,4GlcbCeramide)

M.F.: $C_{46}H_{87}NO_{13}$

M.W.: 862.20

CAS No.: 4201-62-1

Package: mg to kg



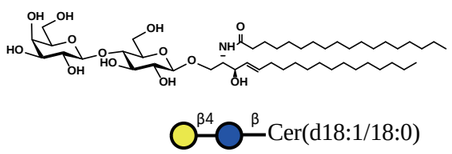
GL-2004 LacCer d18:1/18:0 (Galb1,4GlcbCeramide)

M.F.: $C_{48}H_{91}NO_{13}$

M.W.: 890.25

CAS No.: 125712-73-4

Package: mg to kg



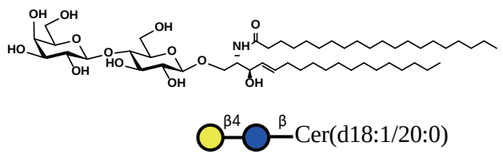
GL-2005 LacCer d18:1/20:0 (Galb1,4GlcbCeramide)

M.F.: $C_{50}H_{95}NO_{13}$

M.W.: 918.30

CAS No.: 125650-87-5

Package: mg to kg



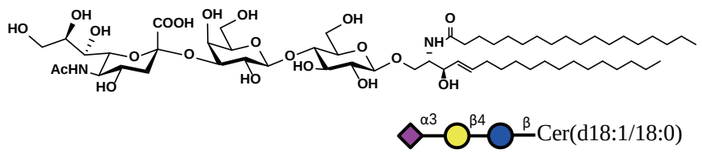
GL-2104 GM3Cer d18:1/18:0 (Neu5Aca2,3Galb1,4GlcbCeramide)

M.F.: $C_{59}H_{108}N_2O_{21}$

M.W.: 1181.51

CAS No.: N/A

Package: mg to kg



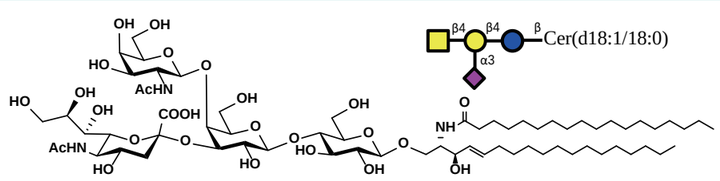
GL-2116 GM2Cer d18:1/18:0 (GalNAcb1,4(Neu5Aca2,3)Galb1,4GlcbCeramide)

M.F.: $C_{67}H_{121}N_3O_{26}$

M.W.: 1384.70

CAS No.: N/A

Package: mg , g



Polysaccharide series

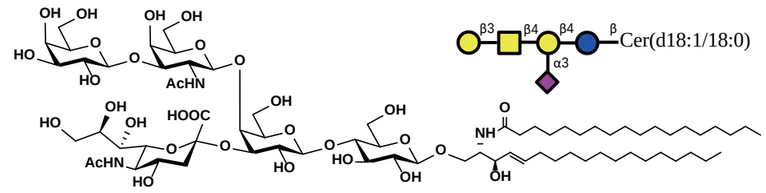
GL-2128 GM1aCer d18:1/18:0 (Galb1,3GalNAcb1,4(Neu5Aca2,3)Galb1,4GlcbCeramide)

M.F.: $C_{73}H_{131}N_3O_{31}$

M.W.: 1546.84

CAS No.: 37758-47-7

Package: mg to kg



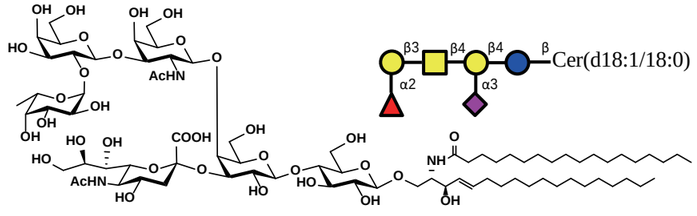
GL-2152 FucGM1Cer d18:1/18:0 ((Fuca1,2)Galb1,3GalNAcb1,4(Neu5Aca2,3)Galb1,4GlcbCeramide)

M.F.: $C_{79}H_{141}N_3O_{35}$

M.W.: 1692.98

CAS No.: N/A

Package: mg to kg



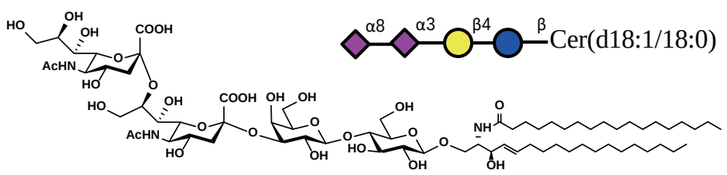
GL-2164 GD3Cer d18:1/18:0 (Neu5Aca2,8Neu5Aca2,3Galb1,4GlcbCeramide)

M.F.: $C_{70}H_{125}N_3O_{29}$

M.W.: 1472.76

CAS No.: N/A

Package: mg , g



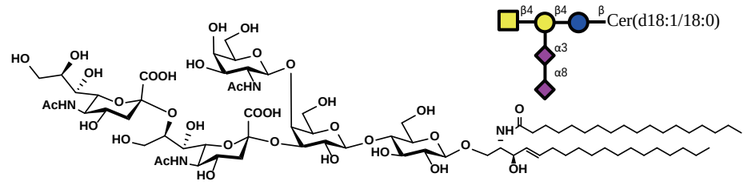
GL-2176 GD2Cer d18:1/18:0 (GalNAcb1,4(Neu5Aca2,8Neu5Aca2,3)Galb1,4GlcbCeramide)

M.F.: $C_{78}H_{138}N_4O_{34}$

M.W.: 1675.96

CAS No.: N/A

Package: mg , g



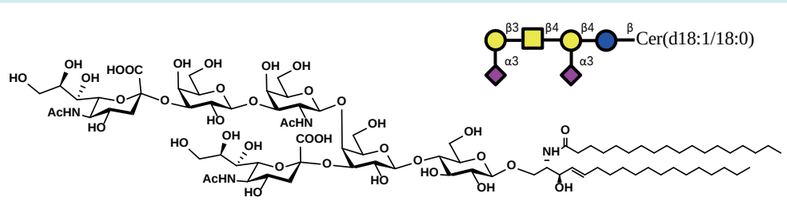
GL-2188 GD1aCer d18:1/18:0 ((Neu5Aca2,3)Galb1,3GalNAcb1,4(Neu5Aca2,3)Galb1,4GlcbCeramide)

M.F.: $C_{84}H_{148}N_4O_{39}$

M.W.: 1838.10

CAS No.: N/A

Package: mg , g



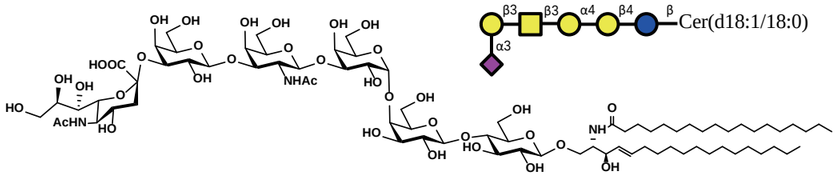
GL-2352 SSEA-4 d18:1/18:0 ((Neu5Aca2,3)Galb1,3GalNAcb1,3Gala1,4Galb1,4GlcbCeramide)

M.F.: $C_{79}H_{141}N_3O_{36}$

M.W.: 1708.98

CAS No.: N/A

Package: mg , g



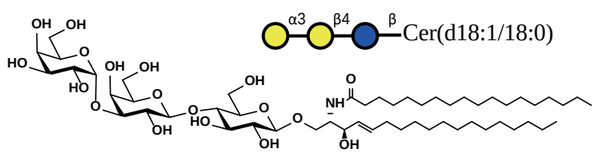
GL-2364 iGB3Cer d18:1/18:0 (Gala1,3Galb1,4GlcbCeramide)

M.F.: $C_{54}H_{101}NO_{18}$

M.W.: 1052.39

CAS No.: N/A

Package: mg , g



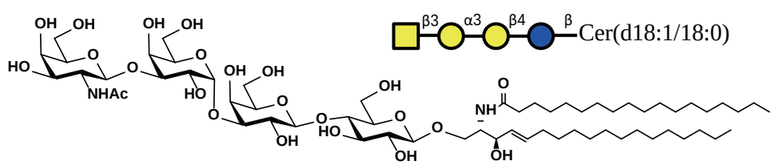
GL-2376 iGB4Cer d18:1/18:0 (GalNAcb1,3Gala1,3Galb1,4GlcbCeramide)

M.F.: $C_{62}H_{114}N_2O_{23}$

M.W.: 1255.59

CAS No.: N/A

Package: mg , g



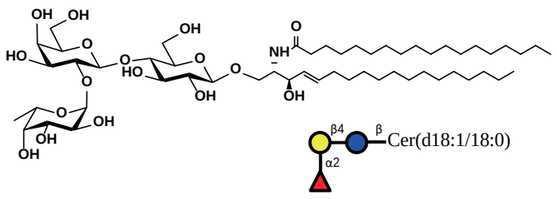
GL-2424 H AntigenCer d18:1/18:0 ((Fuca1,2)Galb1,4GlcbCeramide)

M.F.: $C_{54}H_{101}NO_{17}$

M.W.: 1036.39

CAS No.: N/A

Package: mg to kg



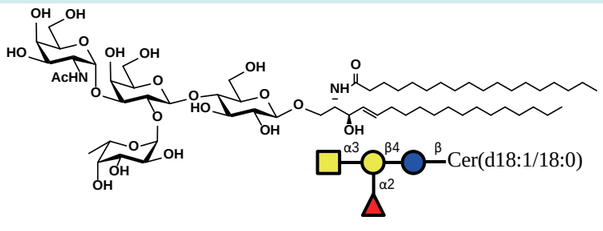
GL-2436 A AntigenCer d18:1/18:0 (GalNAca1,3(Fuca1,2)Galb1,4GlcbCeramide)

M.F.: $C_{62}H_{114}N_2O_{22}$

M.W.: 1239.59

CAS No.: N/A

Package: mg to kg



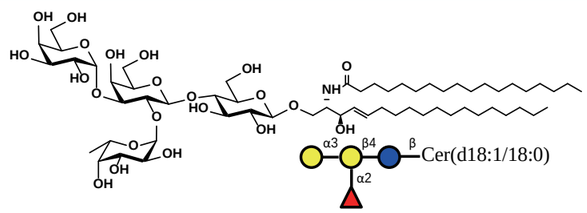
GL-2448 B AntigenCer d18:1/18:0 (Gala1,3(Fuca1,2)Galb1,4GlcbCeramide)

M.F.: $C_{60}H_{111}NO_{22}$

M.W.: 1198.53

CAS No.: N/A

Package: mg to kg



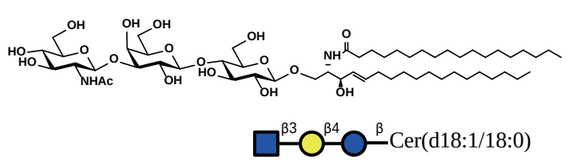
GL-2460 Lc3Cer d18:1/18:0 (GlcNAcb1,3Galb1,4GlcbCeramide)

M.F.: $C_{56}H_{104}N_2O_{18}$

M.W.: 1093.44

CAS No.: N/A

Package: mg to kg



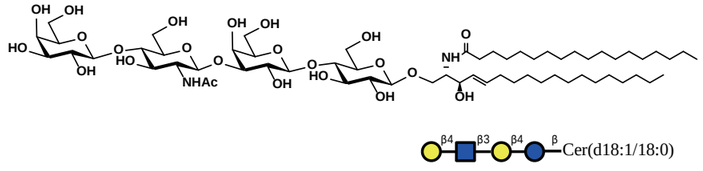
GL-2472 nLc4Cer d18:1/18:0 (Galb1,4GlcNAcb1,3Galb1,4GlcbCeramide)

M.F.: $C_{62}H_{114}N_2O_{23}$

M.W.: 1255.59

CAS No.: N/A

Package: mg to kg



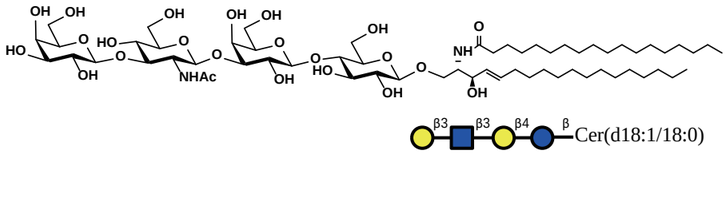
GL-2484 Lc4Cer d18:1/18:0 (Galb1,3GlcNAcb1,3Galb1,4GlcbCeramide)

M.F.: $C_{62}H_{114}N_2O_{23}$

M.W.: 1255.59

CAS No.: N/A

Package: mg to kg



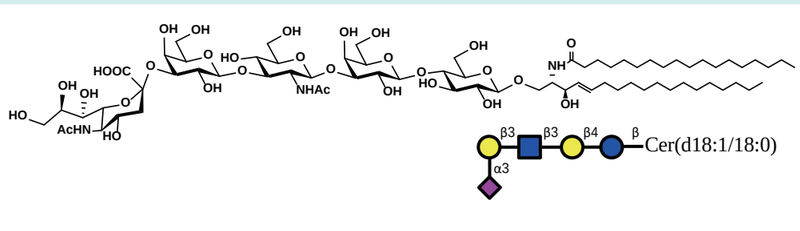
GL-2496 Sialyl-Lc4Cer d18:1/18:0 ((Neu5Aca2,3)Galb1,3GlcNAcb1,3Galb1,4GlcbCeramide)

M.F.: $C_{73}H_{131}N_3O_{31}$

M.W.: 1546.84

CAS No.: N/A

Package: mg to kg



Sulfatide series

Sulfatide is abundant in the nervous system and participates in the formation of myelin. Myelin plays protective and insulating role on neurons, so defects in sulfatin metabolism can impair sensory, behavioral, cognitive and other functions, and are related to AD, PD, etc. Sulfatide is also found in the kidneys, gastrointestinal tract, and in the membranes of red blood cells, platelets, and granulocytes, and may be involved in tumors, diabetes, and some immune diseases (e.g, multiple sclerosis)[1].

Reference

[1]Jarosław Suchański, et al. 2016 May 9;70:489-504.

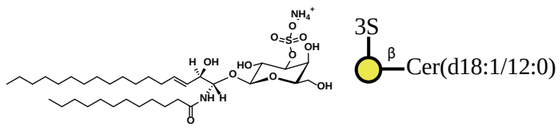
GSLA-0001 Mono-sulfo-GalactosylbCeramide(d18:1/12:0)

M.F.: $C_{35}H_{70}N_2O_{11}S$

M.W.: 727.01

CAS No.: 852043-39-1

Package: mg , g



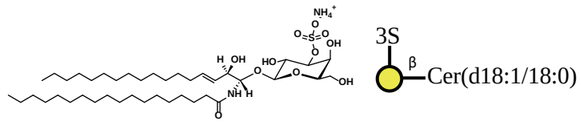
GSLA-0002 Mono-sulfo-GalactosylbCeramide(d18:1/18:0)

M.F.: $C_{41}H_{82}N_2O_{11}S$

M.W.: 811.17

CAS No.: 2260670-26-4/2260270-28-6

Package: mg , g



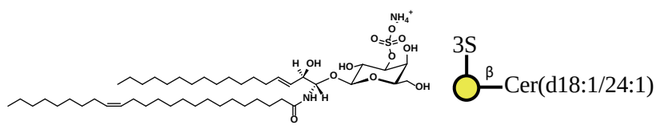
GSLA-0003 Mono-sulfo-GalactosylbCeramide(d18:1/24:1)

M.F.: $C_{47}H_{92}N_2O_{11}S$

M.W.: 893.32

CAS No.: 1246355-69-0

Package: mg , g



Sulfatide series

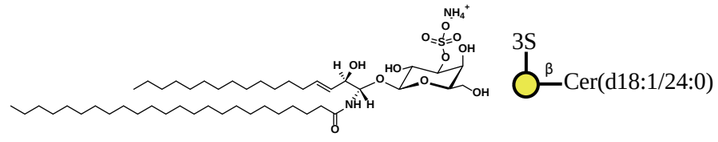
GSLA-0004 Mono-sulfo-GalactosylbCeramide(d18:1/24:0)

M.F.: $C_{47}H_{94}N_2O_{11}S$

M.W.: 895.33

CAS No.: 1246304-32-4

Package: mg , g



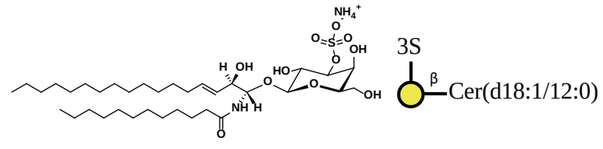
GSLA-0005 Di-sulfo-GalactosylbCeramide(d18:1/12:0)

M.F.: $C_{35}H_{70}N_2O_{11}S$

M.W.: 727.01

CAS No.: 852043-40-4

Package: mg , g



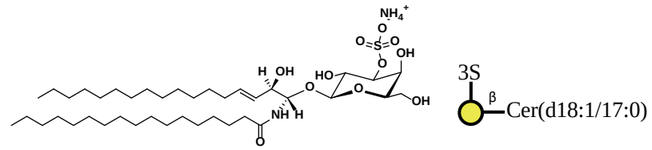
GSLA-0006 Mono-sulfo-GalactosylbCeramide(d18:1/17:0)

M.F.: $C_{40}H_{80}N_2O_{11}S$

M.W.: 797.14

CAS No.: 1246303-23-0

Package: mg , g



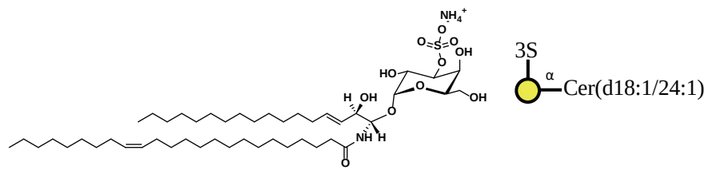
GSLA-0007 Mono-sulfo-GalactosylaCeramide(d18:1/24:1)

M.F.: $C_{47}H_{92}N_2O_{11}S$

M.W.: 893.32

CAS No.: 2260670-38-8

Package: mg , g



Biotin modification series

Biotin-modified glycosphingolipids are beneficial to detect the binding of glycosphingolipids to toxins, pathogens, cells, etc., and even track their intracellular metabolism. For example, after GM1-Biotin is taken up by rat neuroblastoma cell B104 and human neuroblastoma cell SHSY5Y, their endocytosis and distribution in the lysosomal membrane can be studied by immunoelectron microscopy, and they can be found in the cell lysosome. It is metabolized into GM2-Biotin and GM3-Biotin[1].

Reference

[1] Bernd Albrecht, et al. Chemistry and Physics of Lipids,Volume 86, Issue 1,1997,Pages 37-50.

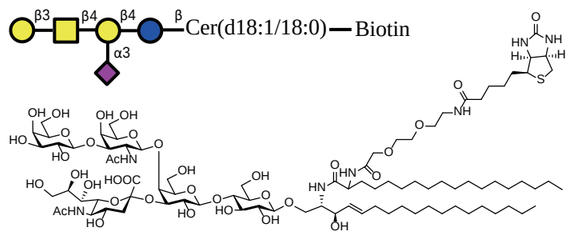
GSLA-1001 GM1aCer d18:1/18:0-Biotin (Galb1,3GalNAcb1,4(Neu5Aca2,3)Galb1,4GlcbCeramide-Biotin)

M.F.: $C_{89}H_{157}N_7O_{36}S$

M.W.: 1933.31

CAS No.: 2770684-25-6

Package: mg , g



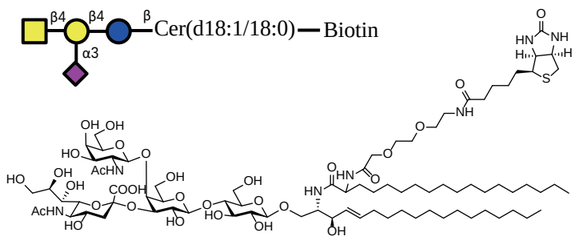
GSLA-1002 GM2Cer d18:1/18:0-Biotin (GalNAcb1,4(Neu5Aca2,3)Galb1,4GlcbCeramide-Biotin)

M.F.: $C_{83}H_{147}N_7O_{31}S$

M.W.: 1771.17

CAS No.: N/A

Package: mg , g



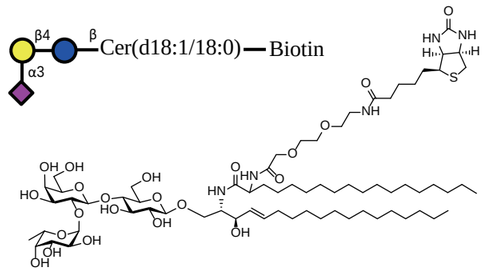
GSLA-1003 GM3Cer d18:1/18:0-Biotin ((Neu5Aca2,3)Galb1,4GlcbCeramide-Biotin)

M.F.: $C_{70}H_{127}N_5O_{22}S$

M.W.: 1422.86

CAS No.: N/A

Package: mg , g



Biotin modification series

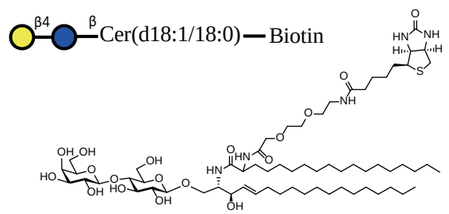
GSLA-1004 LacCer d18:1/18:0-Biotin (Galb1,4GlcbCeramide-Biotin)

M.F.: $C_{64}H_{117}N_5O_{18}S$

M.W.: 1276.72

CAS No.: N/A

Package: mg , g



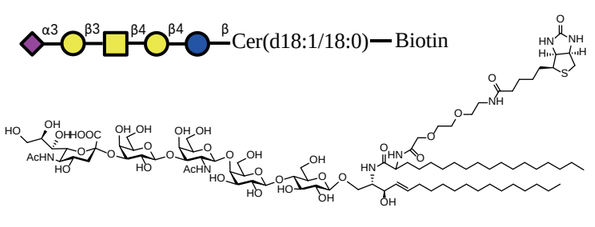
GSLA-1005 GM1bCer d18:1/18:0-Biotin ((Neu5Aca2,3)Galb1,3GalNAcb1,4Galb1,4GlcbCeramide-Biotin)

M.F.: $C_{89}H_{157}N_7O_{36}S$

M.W.: 1933.31

CAS No.: N/A

Package: mg , g



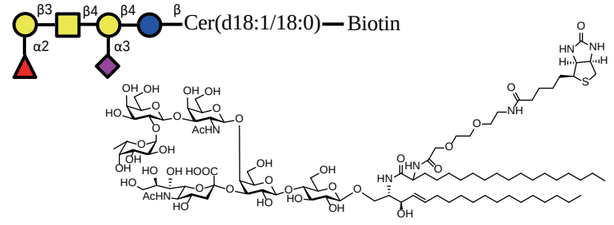
GSLA-1006 FucGM1Cer d18:1/18:0-Biotin ((Fuca1,2)Galb1,3GalNAcb1,4(Neu5Aca2,3)Galb1,4GlcbCeramide-Biotin)

M.F.: $C_{95}H_{167}N_7O_{40}S$

M.W.: 2079.45

CAS No.: N/A

Package: mg , g



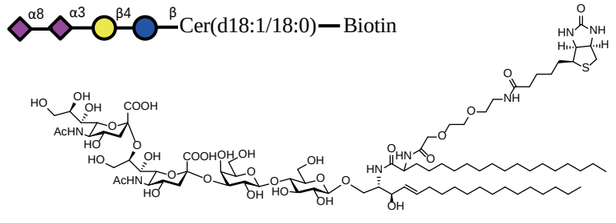
GSLA-1007 GD3Cer d18:1/18:0-Biotin (Neu5Aca2,8Neu5Aca2,3Galb1,4GlcbCeramide-Biotin)

M.F.: $C_{86}H_{151}N_7O_{34}S$

M.W.: 1859.23

CAS No.: N/A

Package: mg , g



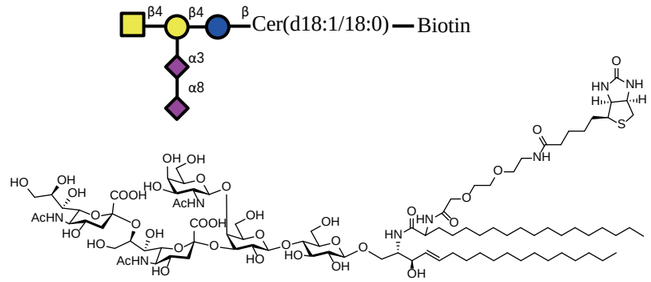
GSLA-1008 GD2Cer d18:1/18:0-Biotin (GalNAcb1,4(Neu5Aca2,8Neu5Aca2,3)Galb1,4GlcbCeramide-Biotin)

M.F.: $C_{94}H_{164}N_8O_{39}S$

M.W.: 2062.42

CAS No.: N/A

Package: mg , g



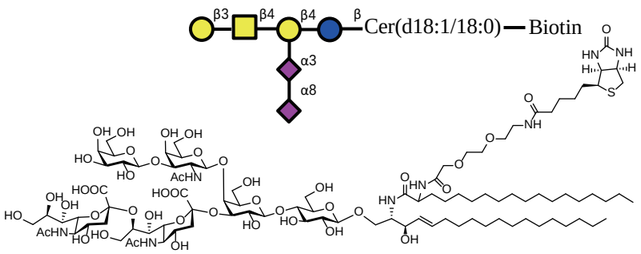
GSLA-1009 GD1bCer d18:1/18:0-Biotin (Galb1,3GalNAcb1,4(Neu5Aca2,8Neu5Aca2,3)Galb1,4GlcbCeramide-Biotin)

M.F.: $C_{100}H_{174}N_8O_{44}S$

M.W.: 2224.56

CAS No.: N/A

Package: mg , g



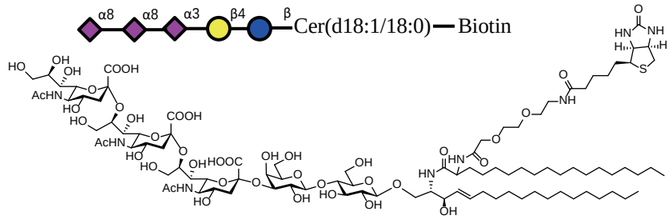
GSLA-1010 GT3Cer d18:1/18:0-Biotin (Neu5Aca2,8Neu5Aca2,8Neu5Aca2,3Galb1,4GlcbCeramide-Biotin)

M.F.: $C_{97}H_{168}N_8O_{42}S$

M.W.: 2150.49

CAS No.: N/A

Package: mg , g



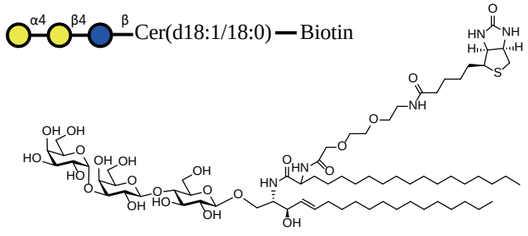
GSLA-1011 GB3Cer d18:1/18:0-Biotin (Gala1,4Galb1,4GlcbCeramide-Biotin)

M.F.: $C_{70}H_{127}N_5O_{23}S$

M.W.: 1438.86

CAS No.: N/A

Package: mg , g



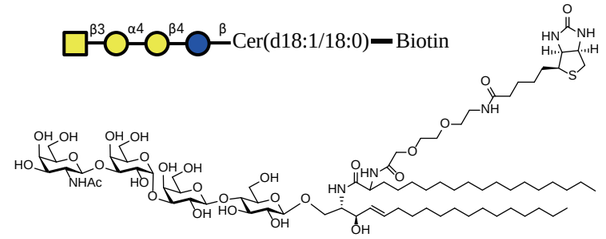
GSLA-1012 GB4Cer d18:1/18:0-Biotin (GalNAcb1,3Gala1,4Galb1,4GlcbCeramide-Biotin)

M.F.: $C_{78}H_{140}N_6O_{28}S$

M.W.: 1642.05

CAS No.: N/A

Package: mg , g



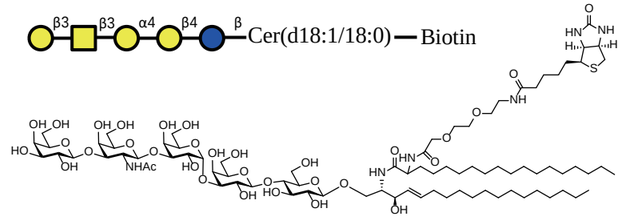
GSLA-1013 GB5Cer d18:1/18:0-Biotin (Galb1,3GalNAcb1,3Gala1,4Galb1,4GlcbCeramide-Biotin)

M.F.: $C_{84}H_{150}N_6O_{33}S$

M.W.: 1804.19

CAS No.: N/A

Package: mg , g



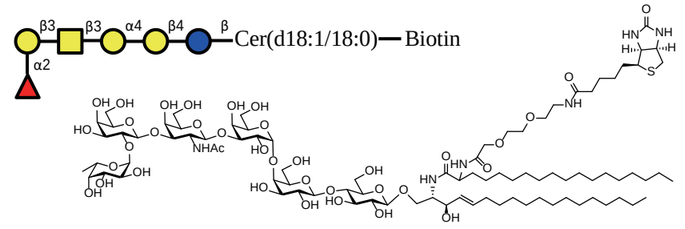
GSLA-1014 GloboHCer d18:1/18:0-Biotin ((Fuca1,2)Galb1,3GalNAcb1,3Gala1,4Galb1,4GlcbCeramide-Biotin)

M.F.: $C_{90}H_{160}N_6O_{37}S$

M.W.: 1950.34

CAS No.: N/A

Package: mg , g



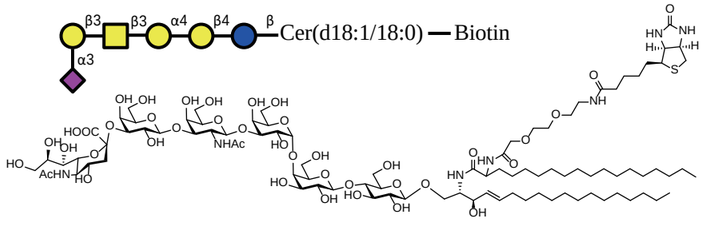
GSLA-1015 SSEA-4 d18:1/18:0-Biotin ((Neu5Aca2,3)Galb1,3GalNAcb1,3Gala1,4Galb1,4GlcbCeramide-Biotin)

M.F.: $C_{95}H_{167}N_7O_{41}S$

M.W.: 2095.45

CAS No.: N/A

Package: mg , g



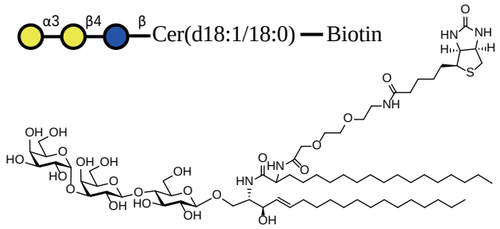
GSLA-1016 iGB3Cer d18:1/18:0-Biotin (Gala1,3Galb1,4GlcbCeramide-Biotin)

M.F.: $C_{70}H_{127}N_5O_{23}S$

M.W.: 1438.86

CAS No.: N/A

Package: mg , g



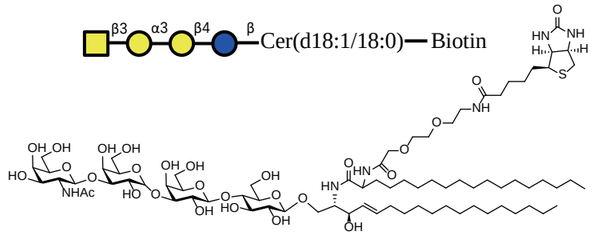
GSLA-1017 iGB4Cer d18:1/18:0-Biotin (GalNAcb1,3Gala1,3Galb1,4GlcbCeramide-Biotin)

M.F.: $C_{78}H_{140}N_6O_{28}S$

M.W.: 1642.05

CAS No.: N/A

Package: mg , g



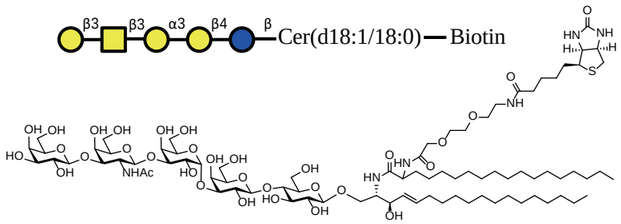
GSLA-1018 iGB5Cer d18:1/18:0-Biotin (Galb1,3GalNAcb1,3Gala1,3Galb1,4GlcbCeramide-Biotin)

M.F.: $C_{84}H_{150}N_6O_{33}S$

M.W.: 1804.19

CAS No.: N/A

Package: mg , g



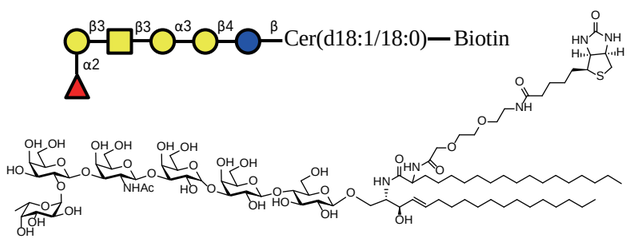
GSLA-1019 iGloboHCer d18:1/18:0-Biotin ((Fuca1,2)Galb1,3GalNAcb1,3Gala1,3Galb1,4GlcbCeramide-Biotin)

M.F.: $C_{90}H_{160}N_6O_{37}S$

M.W.: 1950.34

CAS No.: N/A

Package: mg , g



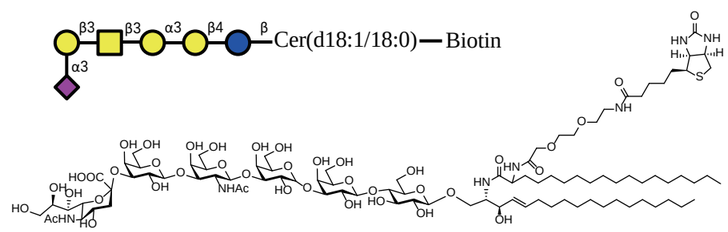
GSLA-1020 Sialyl-iGB5Cer d18:1/18:0-Biotin ((Neu5Aca2,3)Galb1,3GalNAcb1,3Gala1,3Galb1,4GlcbCeramide-Biotin)

M.F.: $C_{95}H_{167}N_7O_{41}S$

M.W.: 2095.45

CAS No.: N/A

Package: mg , g



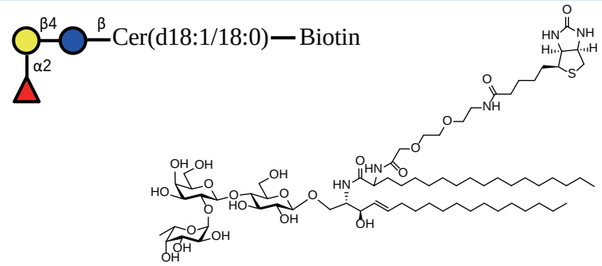
GSLA-1021 H-Antigen-Cer d18:1/18:0-Biotin ((Fuca1,2)Galb1,4GlcbCeramide-Biotin)

M.F.: $C_{70}H_{127}N_5O_{22}S$

M.W.: 1422.86

CAS No.: N/A

Package: mg , g



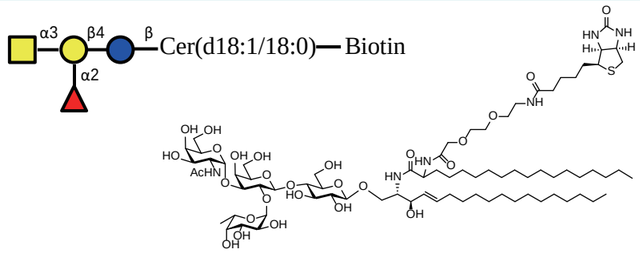
GSLA-1022 A-Antigen-Cer d18:1/18:0-Biotin (GalNAca1,3(Fuca1,2)Galb1,4GlcbCeramide-Biotin)

M.F.: $C_{78}H_{140}N_6O_{27}S$

M.W.: 1626.05

CAS No.: N/A

Package: mg , g



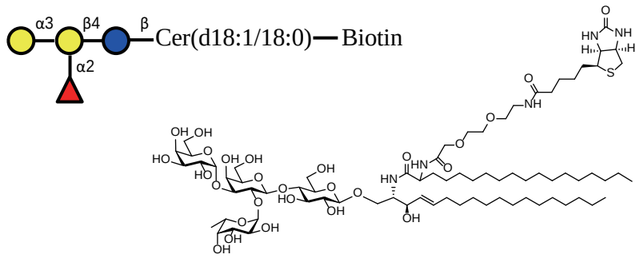
GSLA-1023 B-Antigen-Cer d18:1/18:0-Biotin (Gala1,3(Fuca1,2)Galb1,4GlcbCeramide-Biotin)

M.F.: $C_{76}H_{137}N_5O_{27}S$

M.W.: 1585.00

CAS No.: N/A

Package: mg , g



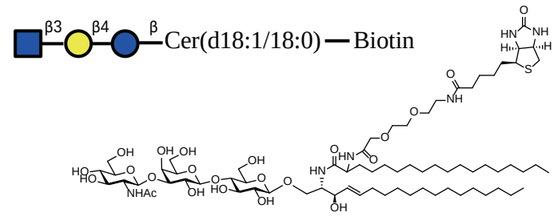
GSLA-1024 Lc3Cer d18:1/18:0-Biotin (GlcNAcb1,3Galb1,4GlcbCeramide-Biotin)

M.F.: $C_{72}H_{130}N_6O_{23}S$

M.W.: 1479.91

CAS No.: N/A

Package: mg , g



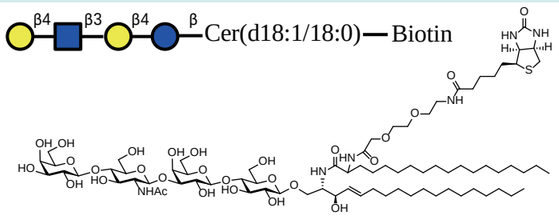
GSLA-1025 nLc4Cer d18:1/18:0-Biotin (Galb1,4GlcNAcb1,3Galb1,4GlcbCeramide-Biotin)

M.F.: $C_{78}H_{140}N_6O_{28}S$

M.W.: 1642.05

CAS No.: N/A

Package: mg , g



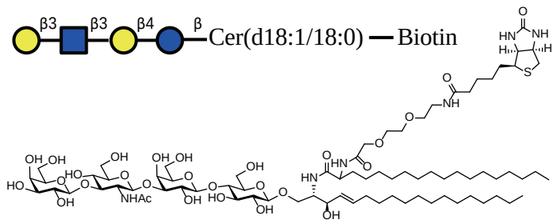
GSLA-1026 Lc4Cer d18:1/18:0-Biotin (Galb1,3GlcNAcb1,3Galb1,4GlcbCeramide-Biotin)

M.F.: $C_{78}H_{140}N_6O_{28}S$

M.W.: 1642.05

CAS No.: N/A

Package: mg , g



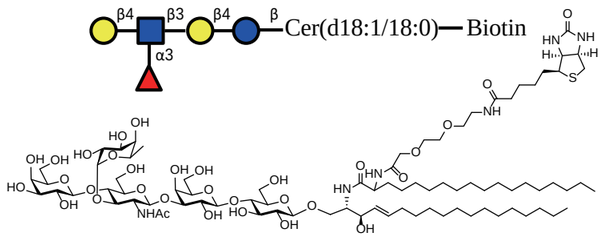
GSLA-1027 LewisxCer d18:1/18:0-Biotin (Galb1,4(Fuca1,3)GlcNAcb1,3Galb1,4GlcbCeramide-Biotin)

M.F.: $C_{84}H_{150}N_6O_{32}S$

M.W.: 1788.19

CAS No.: N/A

Package: mg , g



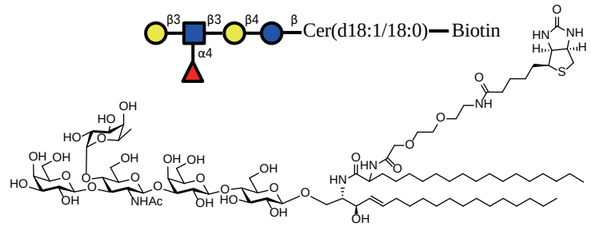
GSLA-1028 LewisaCer d20:1/24:1-Biotin (Galb1,3(Fuca1,4)GlcNAcb1,3Galb1,4GlcbCeramide-Biotin)

M.F.: $C_{84}H_{150}N_6O_{32}S$

M.W.: 1788.19

CAS No.: N/A

Package: mg , g



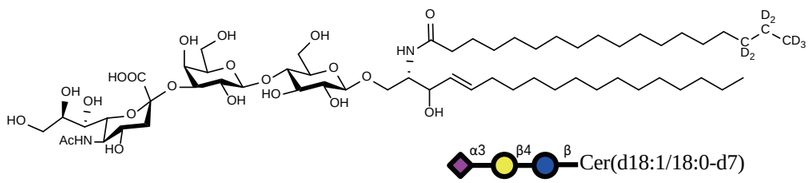
GSLA-2003 GM3Cer(d18:1/18:0-d7)

M.F.: $C_{59}H_{103}D_7N_2O_{21}$

M.W.: 1188.51

CAS No.: N/A

Package: mg , g



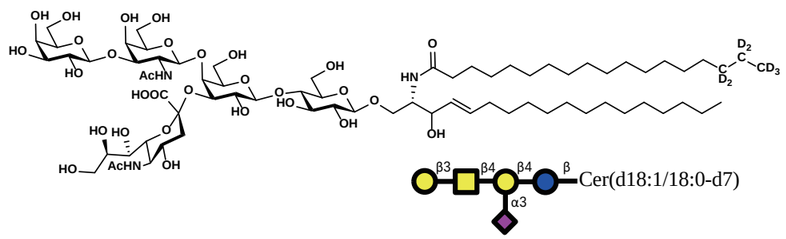
GSLA-2001 GM1aCer(d18:1/18:0-d7)

M.F.: $C_{73}H_{126}D_7N_3O_{31}$

M.W.: 1558.87

CAS No.: N/A

Package: mg , g



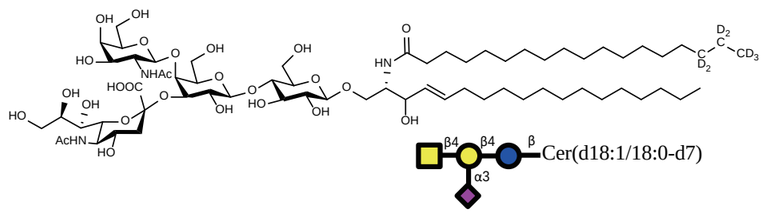
GSLA-2002 GM2Cer(d18:1/18:0-d7)

M.F.: $C_{67}H_{116}D_7N_3O_{26}$

M.W.: 1396.73

CAS No.: N/A

Package: mg , g



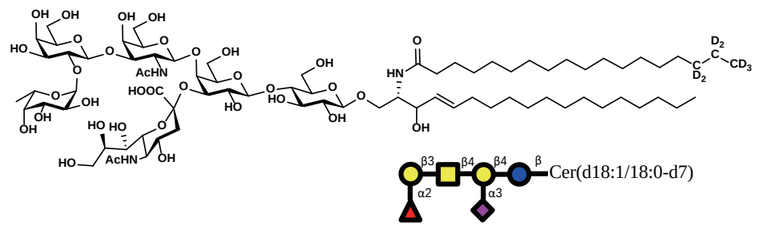
GSLA-2010 Fuc-GM1Cer(d18:1/18:0-d7)

M.F.: $C_{79}H_{136}D_7N_3O_{35}$

M.W.: 1705.01

CAS No.: N/A

Package: mg , g



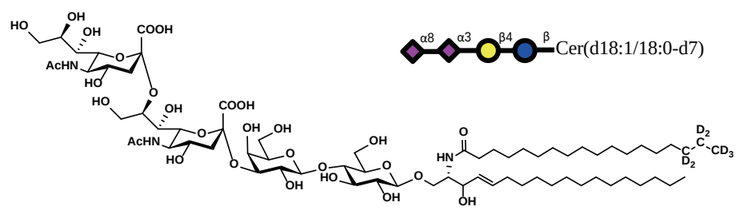
GSLA-2004 GD3Cer(d18:1/18:0-d7)

M.F.: $C_{70}H_{120}D_7N_3O_{29}$

M.W.: 1485.79

CAS No.: N/A

Package: mg , g



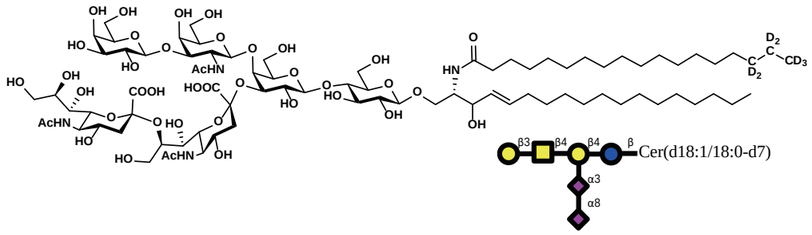
GSLA-2006 GD1bCer(d18:1/18:0-d7)

M.F.: $C_{84}H_{143}D_7N_4O_{39}$

M.W.: 1850.13

CAS No.: N/A

Package: mg , g



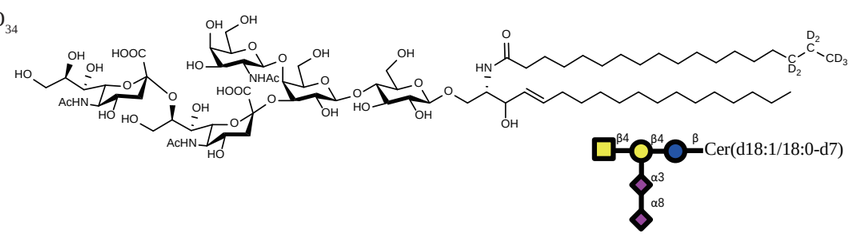
GSLA-2005 GD2Cer(d18:1/18:0-d7)

M.F.: $C_{78}H_{133}D_7N_4O_{34}$

M.W.: 1687.99

CAS No.: N/A

Package: mg , g



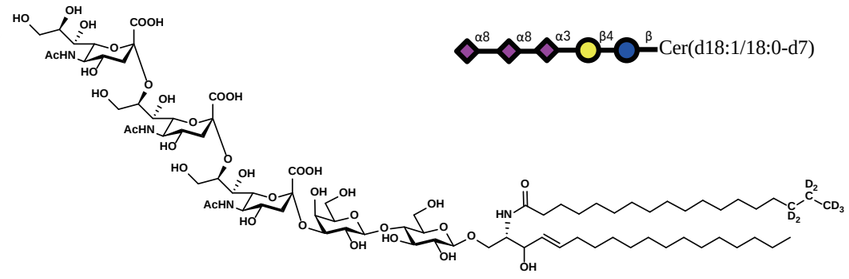
GSLA-2007 GT3Cer(d18:1/18:0-d7)

M.F.: $C_{81}H_{137}D_7N_4O_{37}$

M.W.: 1776.05

CAS No.: N/A

Package: mg , g



Isotopically labeled sugar wisdom

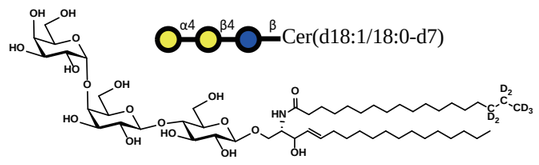
GSLA-2008 GB3Cer(d18:1/18:0-d7)

M.F.: $C_{54}H_{96}D_7NO_{18}$

M.W.: 1064.42

CAS No.: N/A

Package: mg , g



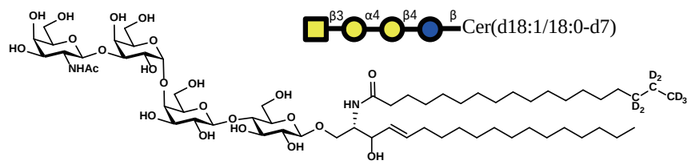
GSLA-2009 GB4Cer(d18:1/18:0-d7)

M.F.: $C_{62}H_{109}D_7N_2O_{23}$

M.W.: 1267.62

CAS No.: N/A

Package: mg , g



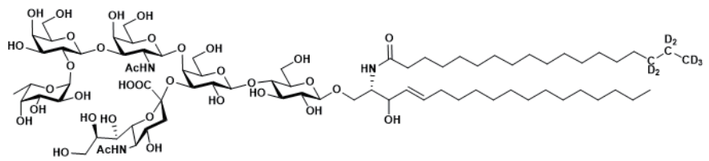
GSLA-2009 Fuc-GM1-Cer(d18:1/18:0-d7)

M.F.: $C_{62}H_{109}D_7N_2O_{23}$

M.W.: 1267.62

CAS No.: N/A

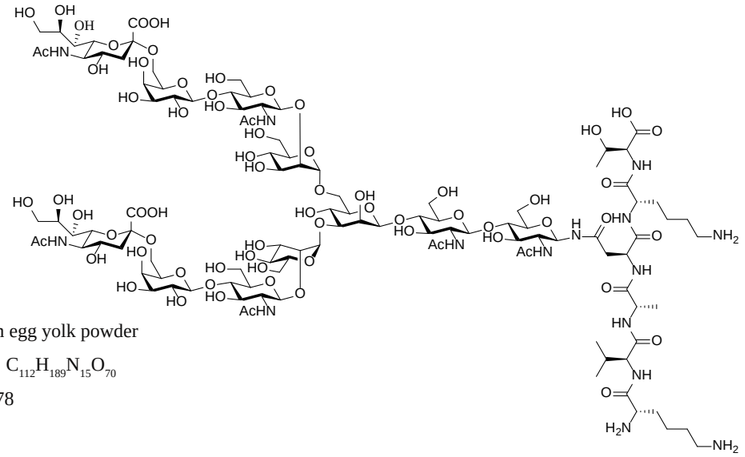
Package: mg , g



Glycans and glycopeptides

Introduction to SGP and applications

Sialoglycopeptide (SGP) is a biantennary sialylated glycopeptide extracted from egg yolk. From extraction, purification, analysis and storage, Highassay has overcome the difficulties in the production and purification of SGP from gram scale to hundred gram scale, which accelerate its application from scientific research laboratories to industry. With SGP as the starting material, not only a variety of N-glycans can be obtained through the action of enzymes, but also glycoconjugates containing glycopeptides and glycoproteins are available to manufacture.



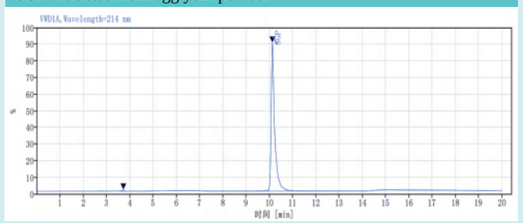
SGP extracted from egg yolk powder

Chemical Formula: $C_{112}H_{189}N_{15}O_{70}$

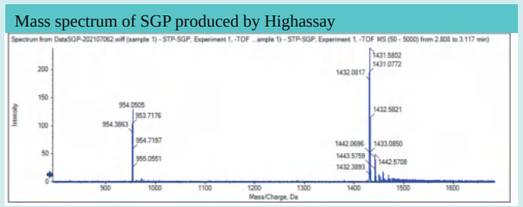
Exact Mass: 2865.78

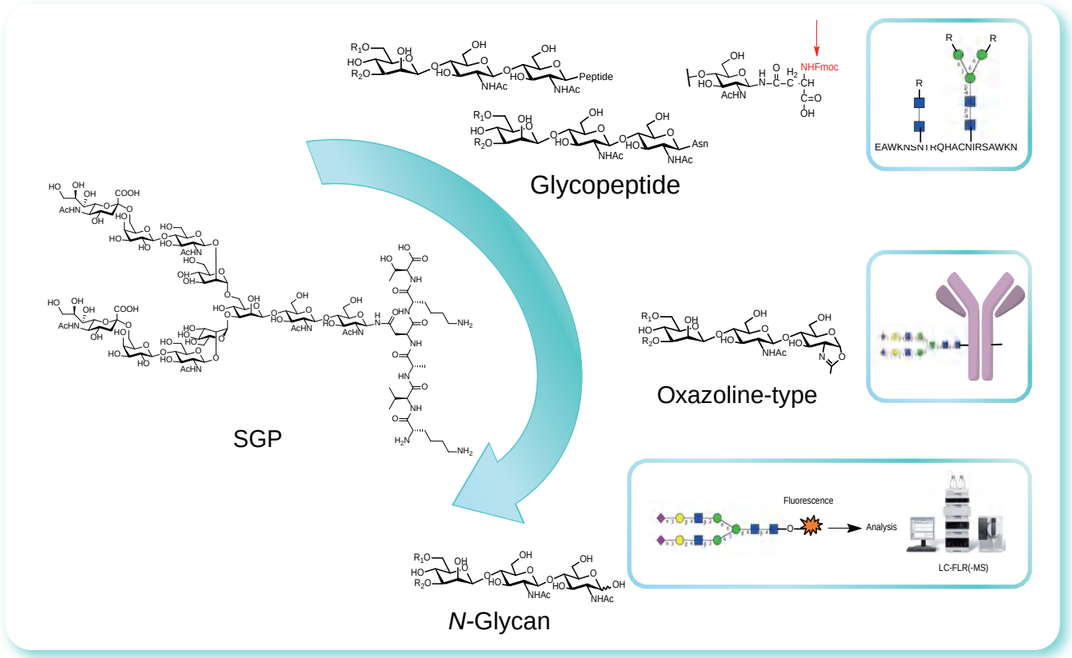
GP-1001

SGP extracted from egg yolk powder



Mass spectrum of SGP produced by Highassay





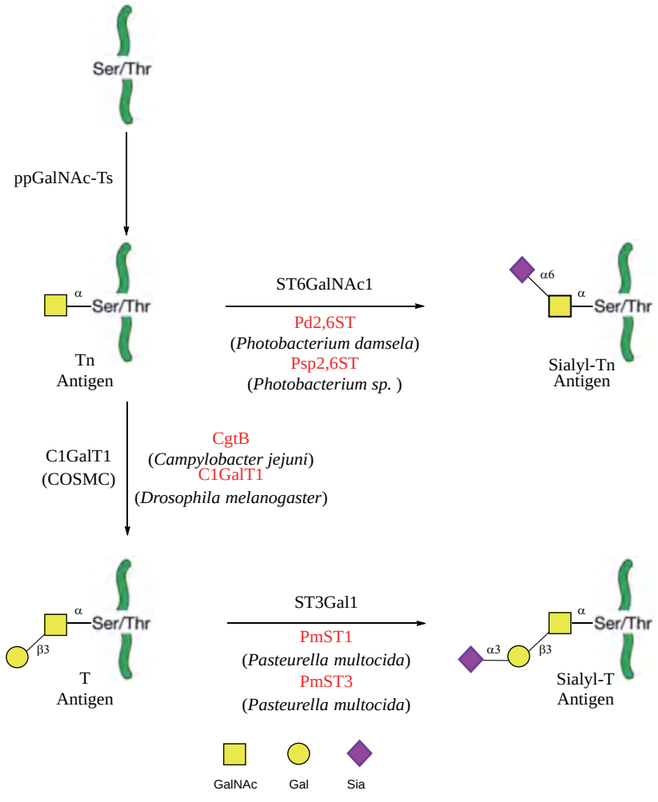
Glycopeptides

Glycopeptides are a class of macromolecular compounds in which oligosaccharides and polypeptides are linked together. There are two main types of linkages, i.e., N-glycopeptide and O-glycopeptide.

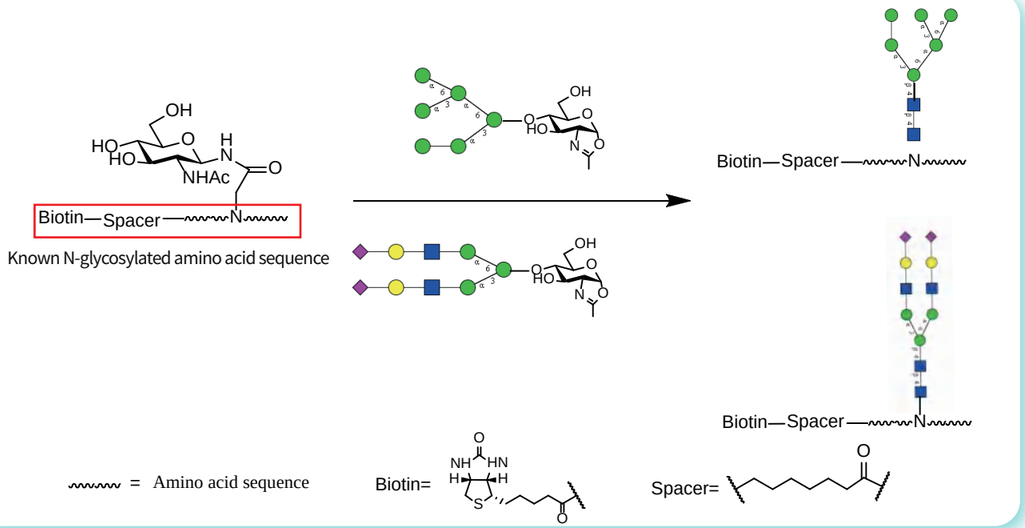
Glycopeptides have important applications in the research and development of carbohydrate drugs, such as glycopeptide antibiotics and antitumor vaccines. After decades of development, peptide synthesis technology has become very mature, and the synthesis of oligosaccharides has also made significant progress in recent years. However, the synthesis of glycopeptides is still very challenging.

N-linked glycopeptide is formed by a β-N-glycosidic bond between the side chain amine of asparagine and the sugar group . O-linked glycopeptide is synthesized by connecting the sugar and serine or threonine side chain. The O- or N-glycosidic bond in the glycopeptide is also an acetal structure, so it has the acid chemical sensitivity of acetal, and will be cut off or undergo terminal isomerization when encountering an acid. In addition, the O-glycosidic bond is also sensitive to the base. Moreover, medium-strength alkali can cause the β-elimination reaction of sugar and the decomposition of glycopeptide. Strong nucleophiles will also cleave or isomerize glycosidic bonds. Therefore, when carry out glycopeptide synthesis, it is necessary to choose mild protection and deprotection conditions, mild condensation and methods for sugar chain and peptide chain extension.

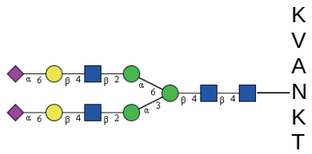
Synthesis of O-Glycopeptides



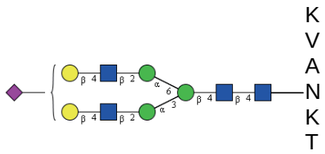
Synthesis of N-Glycopeptides



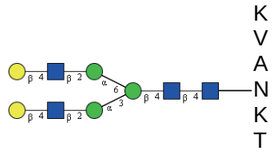
N-glycopeptide



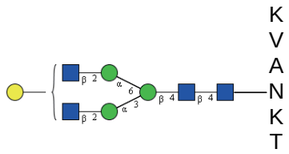
SGP
GP-1001



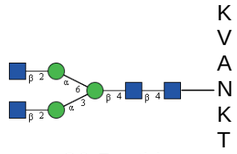
S1G2-Peptide
GP-1002



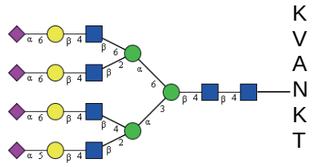
G2-Peptide
GP-1003



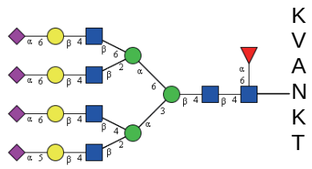
G1-Peptide
GP-1004



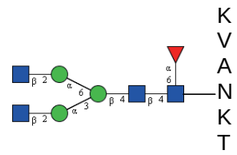
G0-Peptide
GP-1005



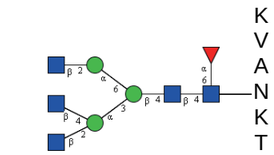
S4(6)G4-Peptide
GP-1006



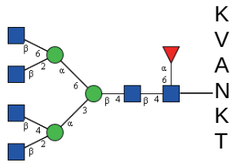
S4(6)G4F-Peptide
GP-1007



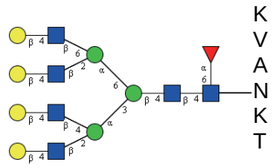
G0F-Peptide
GP-1008



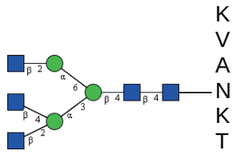
A1aA2bF-Peptide
GP-1009



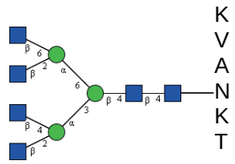
A4F-Peptide
GP-1010



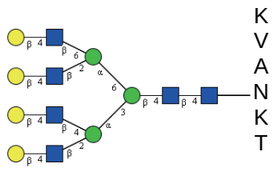
G4A4F-Peptide
GP-1011



A1aA2b-Peptide
GP-1012

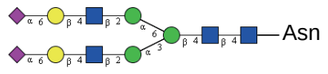


A4-Peptide
GP-1013

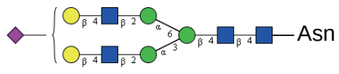


G4-Peptide
GP-1014

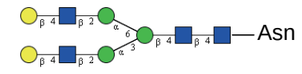
Glycoamino acid



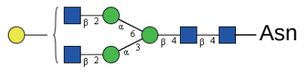
S2(6)G2-Asn
GPN-0001



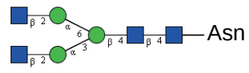
S1G2-Asn
GPN-0002



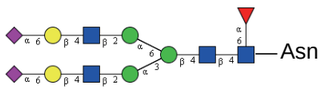
G2-Asn
GPN-0003



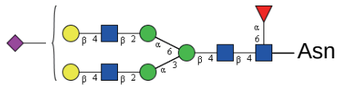
G1-Asn
GPN-0004



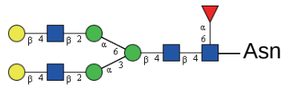
G0-Asn
GPN-0005



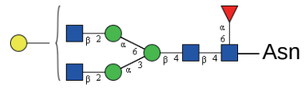
S2(6)G2F-Asn
GPN-0006



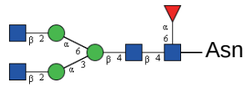
S1G2F-Asn
GPN-0007



G2F-Asn
GPN-0008



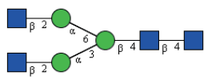
G1F-Asn
GPN-0009



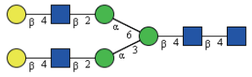
G0F-Asn
GPN-0010

N-Glycan

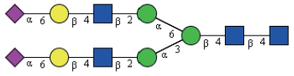
M3-Glycan
GN-3022



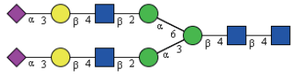
G0-Glycan
GN-3009



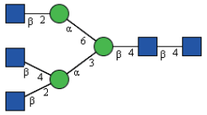
G2-Glycan
GN-3007



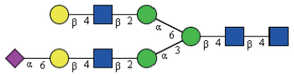
S2(6)G2-Glycan
GN-3001



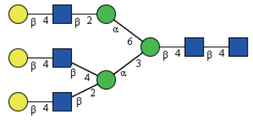
S2(3)G2-Glycan
GN-3002



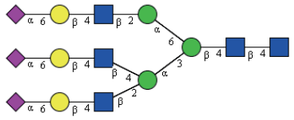
A1aA2b-Glycan
GN-3030



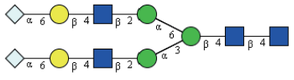
S1bG2-Glycan
GN-3006



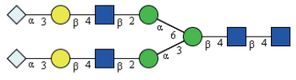
G1A1aG2A2b-Glycan
GN-3031



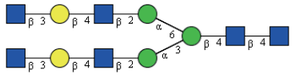
S1(6)G1A1aS2(6)G2A2b-Glycan
GN-3032



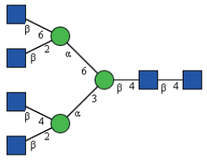
Neu5Gc2(6)G2-Glycan
GN-3005



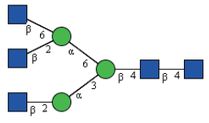
Neu5Gc2(3)G2-Glycan
GN-3004



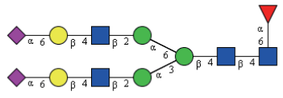
A2G2A2G3-Glycan
GN-3035



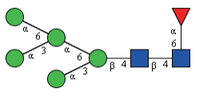
A4-Glycan
GN-3034



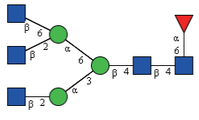
A2aA1b-Glycan
GN-3010



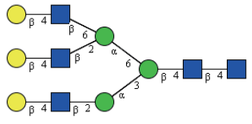
S2G2F
GN-3017



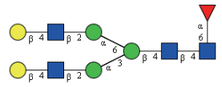
M5F
GN-3021



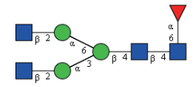
A3F
GN-3020



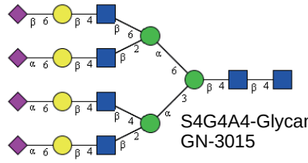
G3A3-Glycan
GN-3011



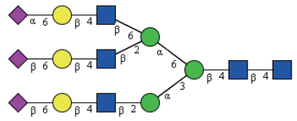
G2F
GN-3019



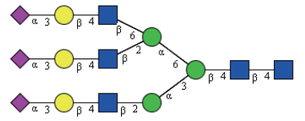
G0F
GN-3018



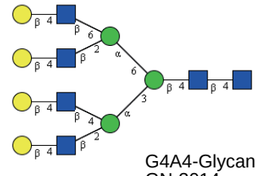
S4G4A4-Glycan
GN-3015



S3(6)G3A3-Glycan
GN-3012



S3(3)G3A3-Glycan
GN-3033



G4A4-Glycan
GN-3014

N-Glycan

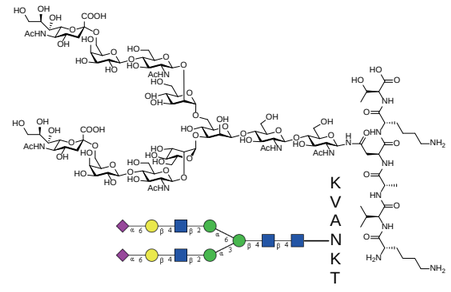
GP-1001 Sialylglycopeptide (SGP)

M.F.: $C_{112}H_{189}N_{15}O_{70}$

M.W.: 2865.78

CAS No.: 189035-43-6

Package: 10 mg, 50 mg, 100 mg, 500 mg, 1 g



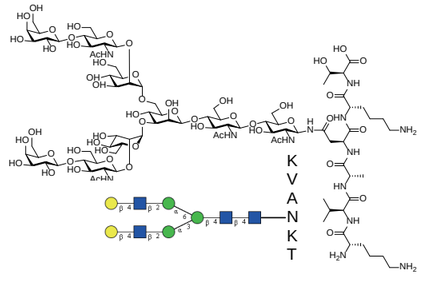
GP-1003 Asialo Sialylglycopeptide (G2-peptide)

M.F.: $C_{90}H_{155}N_{13}O_{54}$

M.W.: 2283.27

CAS No.: 361443-81-4

Package: 10 mg, 50 mg, 100 mg, 500 mg, 1 g



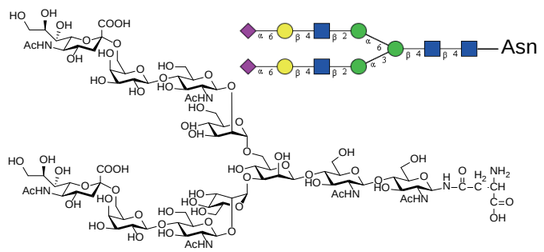
GPN-0001 S2(6)G2-Asn

M.F.: $C_{88}H_{144}N_8O_{64}$

M.W.: 2338.11

CAS No.: 68141-38-8

Package: 10 mg, 50 mg, 100 mg, 500 mg, 1 g



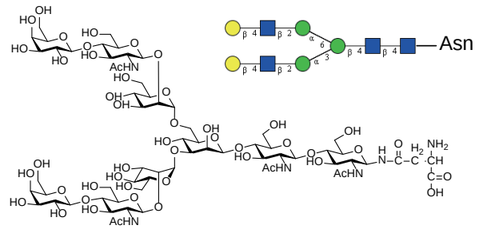
GPN-0003 G2-Asn

M.F.: $C_{66}H_{110}N_6O_{48}$

M.W.: 1755.60

CAS No.: 67299-24-5

Package: 10 mg, 50 mg, 100 mg, 500 mg, 1 g



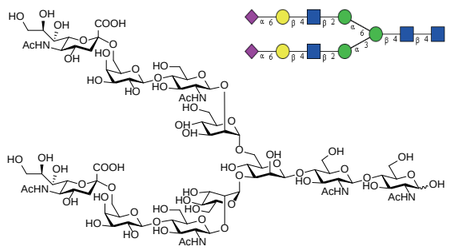
GN-3001 S2(6)G2-Glycan

M.F.: $C_{84}H_{138}N_6O_{62}$

M.W.: 2224.01

CAS No.: 1125602-44-9

Package: 10 mg, 50 mg, 100 mg, 500 mg, 1 g



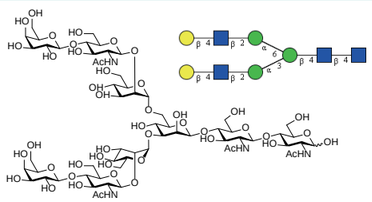
GN-3007 G2-Glycan

M.F.: $C_{62}H_{104}N_4O_{46}$

M.W.: 1641.50

CAS No.: 71496-53-2

Package: 10 mg, 50 mg, 100 mg, 500 mg, 1 g



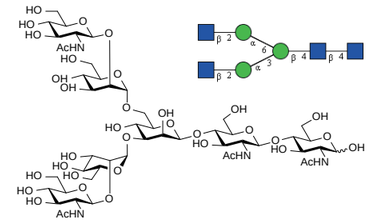
GN-3009 G0-Glycan

M.F.: $C_{50}H_{84}N_4O_{36}$

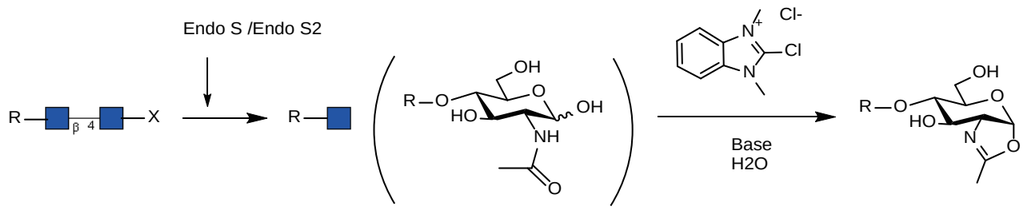
M.W.: 1317.21

CAS No.: 84808-02-6

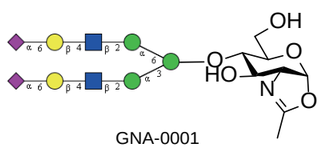
Package: mg to kg

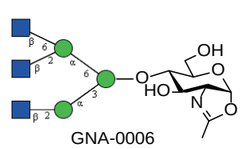


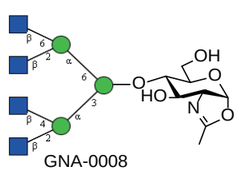
Glycan oxazoline

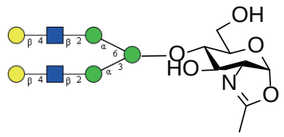


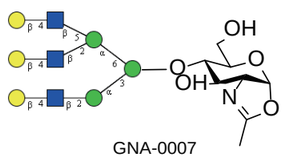
R=oligosaccharide;
X=OH, Asn, Peptide, Antibodies, Protein, etc..


GNA-0001


GNA-0006


GNA-0008


GNA-0002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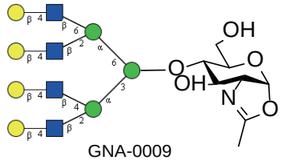
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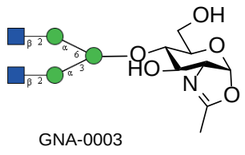
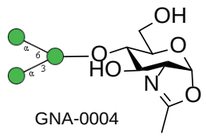
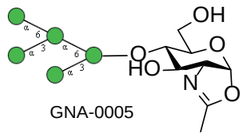
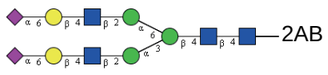

GNA-0003

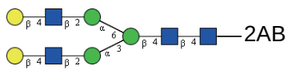

GNA-0004


GNA-0005

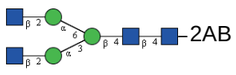
2-AB labelled N-Glycan



S2(6)G2-2AB
GN-5001



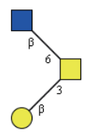
G2-2AB
GN-5001



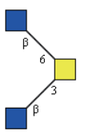
G0-2AB
GN-5003

O-Glycan


Core 1
GPO-1001


Core 2
GPO-1002


Core 3
GPO-1003


Core 4
GPO-1004


Core 5
GPO-1005


Core 6
GPO-1006


Core 7
GPO-1007


Core 8
GPO-1008

O-Glycoamino acid

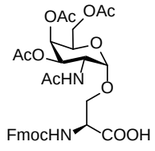
GPO-0001 Fmoc-Ser(Ac_3GalNAcα)-OH

M.F.: $C_{32}H_{36}N_2O_{13}$

M.W.: 656.64

CAS No.: 120173-57-1

Package: mg to kg



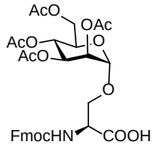
GPO-0002 Fmoc-Ser(Ac_4Mana)-OH

M.F.: $C_{32}H_{35}NO_{14}$

M.W.: 657.63

CAS No.: 118358-80-8

Package: mg to kg



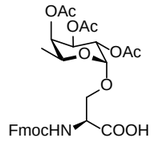
GPO-0003 Fmoc-L-Ser(Ac_3-L-Fuca)-OH

M.F.: $C_{30}H_{33}NO_{12}$

M.W.: 599.59

CAS No.: 173935-46-1

Package: mg to kg



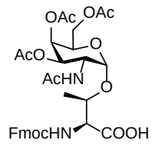
GPO-0004 Fmoc-Thr(Ac_3GalNAcα)-OH

M.F.: $C_{33}H_{38}N_2O_{13}$

M.W.: 670.67

CAS No.: 116783-35-8

Package: mg to kg



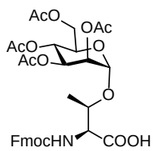
GPO-0005 Fmoc-Thr(Ac_4Mana)-OH

M.F.: $C_{33}H_{37}NO_{24}$

M.W.: 671.65

CAS No.: 169219-08-3

Package: mg to kg



O-Glycoamino acid

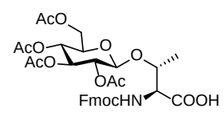
GPO-0006 Fmoc-L-Thr(Ac_4-D-Glcβ-OH)

M.F.: $C_{33}H_{37}NO_{14}$

M.W.: 671.65

CAS No.: 130548-92-4

Package: mg to kg



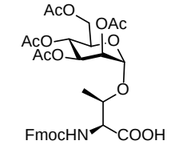
GPO-0007 Fmoc-Thr(Ac_4Mana)-OH

M.F.: $C_{33}H_{37}NO_{14}$

M.W.: 671.65

CAS No.: 169219-08-3

Package: mg to kg



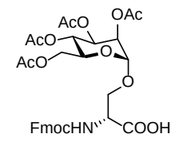
GPO-0008 Fmoc-D-Ser(Ac_4-L-Mana)-OH

M.F.: $C_{32}H_{35}NO_{14}$

M.W.: 657.63

CAS No.: N/A

Package: mg to kg



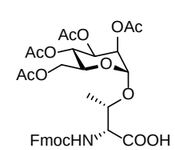
GPO-0009 Fmoc-D-Thr(Ac_4-L-Mana)-OH

M.F.: $C_{33}H_{37}NO_{14}$

M.W.: 671.65

CAS No.: N/A

Package: mg to kg



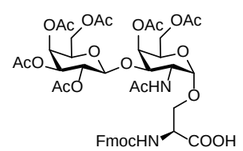
GPO-0010 Fmoc-Ser(Ac_4Galβ-3Ac_2GalNAcα)-OH

M.F.: $C_{44}H_{52}N_2O_{21}$

M.W.: 944.89

CAS No.: 125760-30-7

Package: mg to kg



O-Glycoamino acid

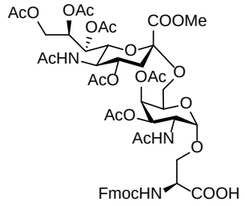
GPO-0011 Fmoc-Ser(Me,Ac_4Neu5Aca2-6Ac_2GalNAca)-OH

M.F.: $C_{50}H_{61}N_3O_{24}$

M.W.: 1088.04

CAS No.: 914456-67-0

Package: mg to kg



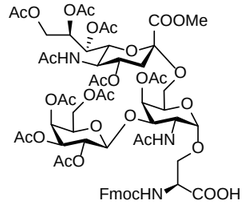
GPO-0012 Fmoc-Ser((Ac_4Galβ-3)Me,Ac_4Neu5Aca2-6AcGalNAca)-OH

M.F.: $C_{62}H_{77}N_3O_{32}$

M.W.: 1376.29

CAS No.: 174783-91-6

Package: mg to kg



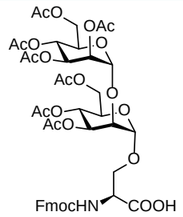
GPO-0013 Fmoc-Ser(Ac_4Mana1-2Ac_3Mana)-OH

M.F.: $C_{44}H_{51}NO_{22}$

M.W.: 945.88

CAS No.: 1427205-92-2

Package: mg to kg



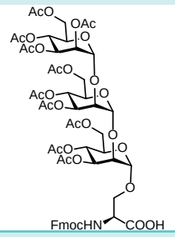
GPO-0014 Fmoc-Ser(Ac_4Mana1-2Ac_3Mana1-2Ac_3Mana)-OH

M.F.: $C_{56}H_{67}NO_{30}$

M.W.: 1234.13

CAS No.: 1427205-93-3

Package: mg to kg



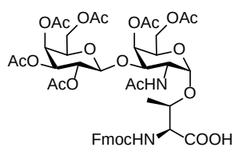
GPO-0015 Fmoc-Thr(Ac_4Galβ-3Ac_2GalNAca)-OH

M.F.: $C_{45}H_{54}N_2O_{21}$

M.W.: 958.92

CAS No.: 125760-33-0

Package: mg to kg



O-Glycoamino acid

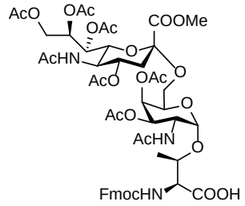
GPO-0016 Fmoc-Thr(Me,Ac_4Neu5Aca2-6Ac_2GalNAca)-OH

M.F.: $C_{51}H_{63}N_3O_{24}$

M.W.: 1102.06

CAS No.: 189561-77-1

Package: mg to kg



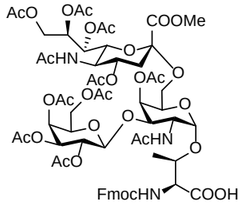
GPO-0017 Fmoc-Thr((Ac_4Galβ-3)Me,Ac_4Neu5Aca2-6AcGalNAca)-OH

M.F.: $C_{63}H_{79}N_3O_{32}$

M.W.: 1390.31

CAS No.: 174783-92-7

Package: mg to kg



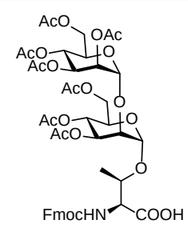
GPO-0018 Fmoc-Thr(Ac_4Mana1-2Ac_3Mana)-OH

M.F.: $C_{45}H_{53}NO_{22}$

M.W.: 959.90

CAS No.: 482576-73-8

Package: mg to kg



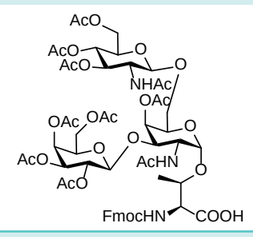
GPO-0019 Fmoc-Thr((Ac_4Galβ-3)Ac_3GlcNAcβ-6AcGalNAca)-OH

M.F.: $C_{57}H_{71}N_3O_{28}$

M.W.: 1246.19

CAS No.: 1240252-34-9

Package: mg to kg



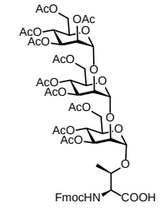
GPO-0020 Fmoc-Thr(Ac_4Mana1-2Ac_3Mana1-2Ac_3Mana)-OH

M.F.: $C_{57}H_{69}NO_{30}$

M.W.: 1248.16

CAS No.: 482576-74-9

Package: mg to kg



Prokaryotic expression of glycoenzymes

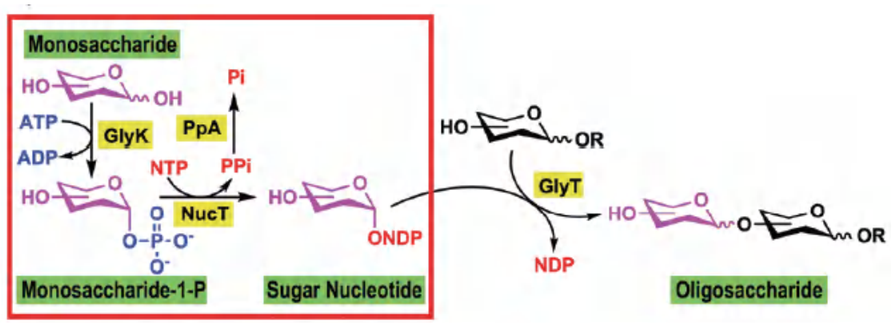
Our advantages

- Glycoenzymes: from gram to hundred grams, various packages, purity≥95%.
- Glycosyltransferase and glycosidase: applied to galactosyl, sialyl and fucosyl group with different types of linkeages and configurations, from various organisms with different substrate specificity.
- Glycokinase: phosphorylation of pentose and hexose at different sites with high specificity.
- Glycooxidase and sugar dehydrogenase: glucose dehydrogenase, galactose oxidase, galactose dehydrogenase, fructose dehydrogenase. *et. al*

Application

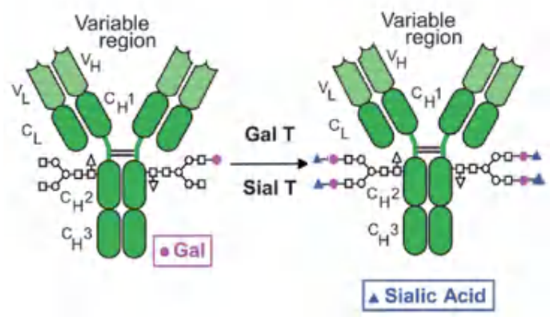
Carbohydrate synthesis

Synthesizing oligosaccharides by glycosyltransferase under mild condition is site-specific, avoiding the complex process and non-specificity in chemical synthesis. Meanwhile, glycosidase can be used to hydrolyse specific glycoside. Phosphorylation at specific site conducted by glycokinase will endow the oligosaccharides with specific function.



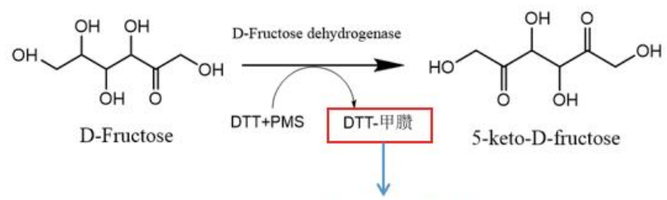
Protein glycosylation modification

Modification of the *N*- and *O*-linked sugar chain can be realized by combination use of glycosyltransferase and glycosidase, which are widely used in glycoprotein and antibody drugs.



Carbohydrate detection

Glucose dehydrogenase, galactose dehydrogenase and fructose dehydrogenase can be used to detect the corresponding saccharide in body fluid, which implies the physical condition.



Principle of fructose concentration detection kit

Glycosyltransferase

SE-1001 β1, 3-N-acetylglucosaminyltransferase (LgtA)

UDP-GlcNAc + Galβ1,4Glc ⟶ GlcNAcβ1, 3Galβ1,4Glc + UDP

EC: 2.4.1.56

Package: 100 mU, 1 U, 5 U

Explanation: *E. coli* recombinant β1, 3-N-acetylglucosaminyltransferase from *Neisseria meningitides.*

Definition: One unit is defined as the amount of enzyme that transfer 1μmol GlcNAc from UDP-GlcNAc to lactose to form GlcNAcβ1,3Lac per minute at 37°C.

SE-1002 β1, 4-galactosyltransferase (LgtB)

GlcNAc or Glc + UDP-Gal ⟶ Galβ1,4GlcNAc or Galβ1,4Glc + UDP

EC: 2.4.1.90

Package: 1 U, 5 U, 25 U

Explanation: *E. coli* recombinant β1, 4-galactosyltransferase from *Neisseria meningitides.*

Definition: One unit is defined as the amount of enzyme that transfer 1μmol Gal from UDP-Gal to GlcNAc to form Galβ1,4GlcNAc per min at 37°C.

SE-1003 α1, 4-galactosyltransferase (LgtC)

UDP-Gal + Galβ1,4Glc ⟶ Galα1,4Galβ1,4Glc + UDP

EC: 2.4.1.228

Package: 5 U, 25 U, 50 U

Explanation: *E. coli* recombinant α1,4-galactosyltransferase from *Neisseria meningitides*.

Definition: One unit is defined as the amount of enzyme that transfer 1μmol Gal from UDP-Gal to Lactose to form Galα1, 4Galβ1, 4Glc per min at 37°C.

SE-1004 β1, 3-N-acetylgalactosaminyltransferase (LgtD)

Galα1, 4Galβ1, 4Glc + UDP-GalNAc ⟶ GalNAcβ1, 3Galα1, 4Galβ1, 4Glc + UDP

EC: 2.4.1.79

Package: 1 U, 5 U, 25 U

Explanation: *E. coli* recombinant β1, 3-N-acetylgalactosaminyltransferase from *Haemophilus influenzae*.

Definition: One unit is defined as the amount of enzyme that transfer 1μmol GalNAc from UDP-GalNAc to Galα1,4Galβ1,4Glc to form GalNAcβ1,3Galα1,4Galβ1,4Glc per min at 37°C.

Glycosyltransferase

SE-1005 β1, 4-N-acetylgalactosaminyltransferase (CgtA)

Neu5Acα2, 3Galβ1, 4Glc + UDP-GalNAc ⟶ Neu5Acα2, 3(GalNAcβ1, 4)Galβ1, 4Glc + UDP

EC: 2.4.1.92

Package: 100 mU, 1 U

Explanation: *E.coli* recombinant β1, 4-N-acetylgalactosaminyltransferase from *Campylobacter jejuni*.

Definition: One unit is defined as the amount of enzyme that transfer 1μmol GalNAc from UDP-GalNAc to Neu5Acα2,3Lac to form Neu5Acα2,3(GalNAcβ1,4)Lac per min at 37°C.

SE-1006 β1, 3-galactosyltransferase (CgtB)

GalNAc + UDP-Gal ⟶ Galβ1, 3GalNAc + UDP

EC: 2.4.1.62

Package: 1 U, 5 U, 25 U

Explanation: *E.coli* recombinant β1, 3-galactosyltransferase from *Campylobacter jejuni*.

Definition: One unit is defined as the amount of enzyme that transfer 1μmol Gal from UDP-Gal to GalNAc to form Galβ1,3GalNAc per min at 37°C.

SE-1007 α1, 3-N-acetylgalactosaminyltransferase (Pm1138)

GalNAc + UDP-GalNAc ⟶ GalNAcα1, 3GalNAc + UDP

EC: 2.4.1.40

Package: 1 U, 10 U, 100 U

Explanation: *E. coli* recombinant α1, 3-N-acetylgalactosaminyltransferase from *Pasteurella multocida.*

Definition: One unit is defined as the amount of enzyme that transfer 1μmol GalNAc from UDP-GalNAc to GalNAc to form GalNAcα1,3-GalNAc per min at 37°C.

SE-1008 α1, 3-galactosyltransferase (α1, 3GalT)

UDP-Gal + Galβ1, 4Glc ⟶ Galα1, 3Galβ1, 4Glc + UDP

EC: 2.4.1.87

Package: 100 mU, 1 U, 5 U

Explanation: *E. coli* recombinant α1, 3-galactosyltransferase from Bovine.

Definition: One unit is defined as the amount of enzyme that transfer 1 μmol Gal from UDP-Gal to Galβ1,4Glc to form Galα1,3Galβ1,4Glc per min at 37°C.

Glycosyltransferase

SE-1009 β1, 4-galactosyltransferase (LgtE)

UDP-Gal + Glcα1, 4Glc ⟶ Galβ1, 4Glcα1, 4Glc + UDP

EC: 2.4.1.90

Package: 1 U, 5 U, 25 U

Explanation: *E. coli* recombinant β1, 4-galactosyltransferase from *Neisseria gonorrhoeae*.

Definition: One unit is defined as the amount of enzyme that transfer 1μmol Gal from UDP-Gal to Glcα1,4Glc to form Galβ1,4Glcα1,4Glc per min at 37°C.

SE-1010 α1, 3-galactosyltransferase (GTB)

Fucα1, 2Galβ1, 4Glc + UDP-Gal ⟶ Galα1, 3(Fucα1, 2)Galβ1, 4Glc + UDP

EC: 2.4.1.37

Package: 0.1 U, 1 U

Explanation: *E. coli* recombinant Human blood group B galactosyltransferase from *Homo sapiens*.

Definition: One unit is defined as the amount of enzyme that transfer 1μmol Gal from UDP-Gal to Fucα1,2Galβ1,4Glc to form Gal α1, 3 Fucα1, 2Galβ1, 4Glc per min at 37°C.

SE-1011 α1, 3-N-acetylgalactosaminyltransferase (BgtA)

Fucα1, 2Galβ1, 4Glcβ + UDP-GalNAC ⟶ GalNAcα1, 3 (Fucα1, 2)Galβ1, 4Glc + UDP

EC: 2.4.1.40

Package: 1 U, 5 U, 25 U

Explanation: *E. coli* recombinant α1, 3-N-acetyl galactosaminyltransferase from *Helicobacter mustelae.*

Definition: One unit is defined as the amount of enzyme that transfer 1μmol GalNAc from UDP-GalNAc to Fucα1, 2Galβ1, 4Glc to form GalNAcα1, 3 Fucα1, 2Galβ1, 4Glc per min at 37°C.

SE-1012 β1, 3-galactosyltransferase (WbgO)

GlcNAcOR + UDP-Gal ⟶ Galβ1, 3GlcNAcOR + UDP

EC: 2.4.1.86

Package: 10 U, 100 U, 1000 U

Explanation: *E. coli* recombinant β1, 3-galactosyltransferase from *Escherichia coli* O55:H7.

Definition: One unit is defined as the amount of enzyme that transfer 1μmol Gal from UDP-Gal to GlcNAcOR to form Galβ1, 3GlcNAcOR per min at 37°C.

Glycosyltransferase

SE-1013 α2, 6-sialyltransferase (Pd26ST)

Lactose + CMP-Neu5Ac ⟶ Neu5Acα2, 6Galβ1, 4Glc + CMP

EC: 2.4.99.1

Package: 10 U, 50 U, 100 U

Explanation: *E. coli* recombinant α2, 6-sialyltransferase from *Photobacterium damsela*.

Definition: One unit is defined as the amount of enzyme that transfer 1μmol Neu5Ac from CMP-Neu5Ac to lactose to form Neu5Acα2, 6Galβ1, 4Glc per min at 37°C.

SE-1014 α2, 3-sialyltransferase (PmST1)

Lactose + CMP-Neu5Ac ⟶ Neu5Acα2, 3Galβ1, 4Glc + CMP

EC: 2.4.99.4

Package: 50 U, 250 U, 1000 U

Explanation: *E. coli* recombinant α2, 3-sialyltransferase from *Pasteurella multocida*.

Definition: One unit is defined as the amount of enzyme that transfer 1μmol Neu5Ac fromCMP-Neu5Ac to lactose to form Neu5Acα2, 3Galβ1, 4Glc per min at 37°C.

SE-1015 α2, 8-sialyltransferase (CstII)

Neu5Acα2, 3/6Galβ1, 4Glc + CMP-Neu5Ac ⟶ (Neu5Acα2, 8)Neu5Acα2, 3/6Galβ1, 4Glc + CMP

EC: 2.4.99.8

Package: 10 U, 50U, 250 U

Explanation: *E. coli* recombinant α2, 8-sialyltransferase from *Campylobacter jejuni*.

Definition: One unit is defined as the amount of enzyme that transfer 1μmol Neu5Ac from CMP-Neu5Ac to Siaα2,3Lac to form (Neu5Acα2, 8)Neu5Acα2, 3/6Galβ1, 4Glc per min at 37°C.

SE-1016 α2, 3-sialyltransferase (PmST3)

Galβ1, 4GlcβSph + CMP-Neu5Ac ⟶ Neu5Acα2, 3Galβ1, 4GlcβSph + CMP

EC: 2.4.99.4

Package: 10 U, 50U, 250 U

Explanation: *E.coli* recombinant α2, 3-sialyltransferase for oligosaccharides and glycolipids from *Pasteurella multocida*.

Definition: One unit is defined as the amount of enzyme that transfer 1 μmol Neu5Ac from CMP-Neu5Ac to lac-Sph to form Neu5Acα2, 3Galβ1, 4Glc per min at 37°C.

Glycosyltransferase

SE-1017 α2, 3-sialyltransferase (Pphα2,3SiaT)

Gal-OR + CMP-Neu5Ac ⟶ Neu5Acα2, 3Gal-OR + CMP

EC: 2.4.99.4

Package: 10 U, 50 U, 250 U

Explanation: *E. coli* recombinant α2, 3-sialyltransferase from *Photobacterium phosphoreum*.

Definition: One unit is defined as the amount of enzyme that transfer 1μmol Neu5Ac from CMP-Neu5Ac to lactose to form Neu5Acα2,3Lac per min at 37°C.

SE-1018 α1, 3-fucosyltransferase (α1, 3FucT)

Gal β1, 4GlcNAcβOR + GDP-Fuc ⟶ Gal β1, 4(Fuα1, 3)GlcNAcβOR + GDP

EC: 2.4.1.65

Package: 1 U, 5 U

Explanation: *E. coli* recombinant α1, 3-fucosyltransferase from *Helicobacter pylori*.

Definition: One unit is defined as the amount of enzyme that transfer 1μmol fucose from GDP-Fuc to Gal β1, 4GlcNAc to form Galβ1, 4(Fucα1, 3) GlcNAc per min at 37°C.

SE-1019 α1, 2-fucosyltransferase (α1, 2FucT)

Galβ1, 4GlcOR + GDP-Fuc ⟶ Fucα1, 2Galβ1, 4GlcOR + GDP

EC: 2.4.1.69

Package: 1 U, 5 U, 25 U

Explanation: *E. coli* recombinant α1, 2-fucosyltransferase from *Helicobacter mustelae*.

Definition: One unit is defined as the amount of enzyme that transfer 1μmol fucose from GDP-Fuc to lactose to form Fucα1,2Lac per min at 37°C.

SE-1020 α1, 3/4-fucosyltransferase (α1, 3/4FucT)

ROH Acceptor + GDP-Fuc ⟶ Fucα3/4OR + GDP

EC: 2.4.1.65

Package: 10 mU, 100 mU

Explanation: *E. coli* recombinant α1, 3/4-fucosyltransferase from *Helicobacter pylori*.

Definition: One unit is defined as the amount of enzyme that catalyzes the transfer of 1 μmol fucose from GDP-Fuc to acceptor per minute at 37°C.

Glycosyltransferase

SE-1021 β1,3-galactosyltransferase (Cvβ3GalT)

GlcNAcβ1, 3Galβ1, 4Glc + UDP-Gal ⟶ Galβ1, 3GlcNAcβ1, 3Galβ1, 4Glc + UDP

EC: 2.4.1.62

Package: 10 mU, 100 mU

Explanation: *E. coli* recombinant β1,3-galactosyltransferase from *Chromobacterium violaceum*.

Definition: One unit is defined as the amount of enzyme that catalyzes the transfer of 1 μmol gal from UDP-Gal to GlcNAcβ3Galβ4Glc per minute at 37°C.

SE-1022 β1,4-galactosyltransferase (Hpβ1,4GalT)

GlcNAc + UDP-Gal ⟶ Galβ1, 4GlcNAc + UDP

EC: 2.4.1.22

Package: 10 mU, 100 mU

Explanation: *E. coli* recombinant β1,4-Galactosyltransferase from *Helicobacter pylori*.

Definition: One unit is defined as the amount of enzyme that catalyzes the transfer of 1 μmol gal from UDP-Gal to GlcNAc per minute at 37°C.

SE-1023 β1,3-N-acetylglucosaminyltransferase (HpB3GlcNAcT)

UDP-GlcNAc + Galβ1, 4GlcNAc ⟶ GlcNAcβ1, 3Galβ1, 4GlcNAc + UDP

EC: 2.4.1.56

Package: 10 mU, 100 mU

Explanation: *E. coli* recombinant β1,3-N-acetylglucosaminyltransferase from *Helicobacter pylori*.

Definition: One unit is defined as the amount of enzyme that catalyzes the transfer of 1 μmol GlcNAc from UDP-GlcNAc to Galβ1, 4GlcNAc per minute at 37°C.

SE-1026 β1,3-galactosyltransferase (Pfβ3GalT)

GlcNAcβ1, 3Galβ1, 4Glc + UDP-Gal ⟶ Galβ1, 3GlcNAcβ1, 3Galβ1, 4Glc + UDP

EC: 2.4.1.62

Package: 10 mU, 100 mU

Explanation: *E.coli* recombinant β1,3-galactosyltransferase from *Pseudogulbenkiania ferrooxidans*.

Definition: One unit is defined as the amount of enzyme that catalyzes the transfer of 1 μmol gal from UDP-Gal to GlcNAcβ1,3Galβ1,4Glc per minute at 37°C.

SE-1027 α1,2-fucosyltransferase (WbgL)

Galβ1, 4Glc + GDP-Fuc ⟶ Fucα1, 2Galβ1, 4Glc + GDP

EC: 2.4.1.69

Package: 100 mU, 1 U

Explanation: *E.coli* recombinant α1,2-fucosyltransferase from *E.coli* O126.

Definition: One unit is defined as the amount of enzyme that transfer 1μmol Fucose from GDP-Fuc to lactose to form Fucα1, 2Lac per min at 37°C.

SE-1028 α1,2-fucosyltransferase (HspBKHT)

Galβ1, 4Glc + GDP-Fuc ⟶ Fucα1, 2Galβ1, 4Glc + GDP

EC: 2.4.1.69

Package: 100 mU, 1 U

Explanation: *E.coli* recombinant α1,2-fucosyltransferase from *Helicobacter* Sp.

Definition: One unit is defined as the amount of enzyme that transfer 1μmol Fucose from GDP-Fuc to lactose to form Fucα1,2Lac per min at 37°C.

SE-1029 α-1,3-fucosyltransferase (AmCafF)

Gal β1, 4Glc + GDP-Fuc ⟶ Fucα1, 3Galβ1, 4Glc + GDP

EC: 2.4.1.65

Package: 100 mU, 1 U

Explanation: *E.coli* recombinant α-1,3-fucosyltransferase from *Australian magpie*.

Definition: One unit is defined as the amount of enzyme that transfer 1μmol Fucose from GDP-Fuc to Gal β1,4Glc to form Fuα1,3Galβ1,4Glc per min at 37°C.

SE-1030 β1,3-galactosyltransferase (C1GalT1)

GalNAcα1-O-Bn + UDP-Gal ⟶ Galβ1, 3GalNAcα1-O-Bn

EC: 2.4.1.122

Package: 10 mU, 100 mU

Explanation: *Pichia pastoris* recombinant β1,3-galactosyltransferase from *Drosophila melanogaster*.

Definition: The amount of enzyme required to transfer 1.0μmol Gal per minute from UDP-Gal to GalNAc-OBn for the synthesis of Galβ1-3GalNAcα-O-Bn at 30°C.

SE-1029 α-1,3-fucosyltransferase (AmCafF)

Gal β1, 4Glc + GDP-Fuc ⟶ Fucα1, 3Galβ1, 4Glc + GDP

EC: 2.4.1.65

Package: 100 mU, 1 U

Explanation: *E.coli* recombinant α-1,3-fucosyltransferase from *Australian magpie*.

Definition: One unit is defined as the amount of enzyme that transfer 1μmol Fucose from GDP-Fuc to Gal β1,4Glc to form Fuα1,3Galβ1,4Glc per min at 37°C.

SE-1030 β1,3-galactosyltransferase (C1GalT1)

GalNAcα1-O-Bn + UDP-Gal ⟶ Galβ1, 3GalNAcα1-O-Bn

EC: 2.4.1.122

Package: 10 mU, 100 mU

Explanation: *Pichia pastoris* recombinant β1,3-galactosyltransferase from *Drosophila melanogaster*.

Definition: The amount of enzyme required to transfer 1.0μmol Gal per minute from UDP-Gal to GalNAc-OBn for the synthesis of Galβ1-3GalNAcα-O-Bn at 30°C.

SE-1031 Heparan-sulfate 6-O-sulfotransferase 1 (Mm6OST1)

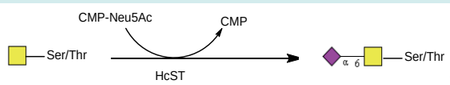
EC: 2.4.1.65

Package: 100 mU, 1 U

Explanation: *E.coli* heparan-sulfate 6-O-sulfotransferase from *Mus musculus*.

Definition: One unit is defined as the amount of enzyme required to transfer the sulfonic acid group of a 1nmole per minute at pH 7.0, 25°C.

SE-1032 α2,6-sialyltransferase (HcST)



EC: 2.4.1.122

Package: 10 mU, 100 mU

Explanation: *Pichia pastoris* recombinant α2,6-sialyltransferase from *H. cetorum*.

Definition: One unit is defined as the amount of enzyme that transfer 1μmol Neu5Ac from UDP-Neu5Ac to lactose to form Siaα2,6Lac per min at 37°C.

Glycosyltransferase

SE-1033 Heparosan Synthase 2 (PmHS2)

GlcA-β-PNP+UDP-GlcNAc ⟶ GlcNAcα1-4GlcA-β-PNP+UDP

Package: 100 mU, 1 U

Explanation: *E.coli* recombinant heparosan Synthase 2 from *Pasteurella multocida*.

Definition: One unit is defined as the amount of enzyme that catalyzes the formation of 1 µmol GlcNAcα1,4GlcA-β-pNP from UDP-GlcNAc and GlcA-β-pNP per minute at 37°C.

SE-1035 α2,6-sialyltransferase (Pl26STΔ15)

GalOR + CMP-Neu5Ac ⟶ Neu5Acα2,6GalOR + CMP

EC: 2.4.99.1

Package: 10 mU, 100 mU

Explanation: *E.coli* recombinant α2,6-sialyltransferase from *Photobacterium leiognathi*.

Definition: One unit is defined as the amount of enzyme that transfer 1µmol Neu5Ac from UDP-Neu5Ac to lactose to form Siaα2,6Lac per min at 37°C.

SE-1039 α1,4-N-acetyl-Glucosaminyltransferase (EcKfiA)

UDP-GlcNAc + GlcA-pNP ⟶ GlcNAcα1,4GlcA-β-pNP

EC: 2.4.1.212

Package: 100 mU, 1 U

Explanation: *E.coli* recombinant α1,4-N-acetyl-glucosaminyltransferase from *Escherichia coli K5*.

Definition: One unit is defined as the amount of enzyme that catalyzes the formation of 1 µmol GlcNAcα1,4GlcA-β-pNP from UDP-GlcNAc and GlcA-β-pNP per minute at 37°C.

SE-1042 N-sulfotransferase (HsNST)

N-deacetylated-heparosan+PAPS ⟶ N-sulfated-heparosan

EC: 2.8.2.8

Package: 100 mU, 1 U

Explanation: *E.coli* recombinant N-sulfotransferase from *Homo sapiens*.

Definition: One unit is defined as the amount of enzyme that catalyzes the formation of 1 µmol N-sulfated-heparosan from PAPS and N-deacetylated-heparosan per minute at 37°C.

Glycosyltransferase

SE-1044 α2,3-sialyltransferase (PmST2)

LacβSph + CMP-Neu5Ac ⟶ GM3βSph + CMP

EC: 2.4.99.4

Package: 100 mU, 1 U

Explanation: *E.coli* recombinant α2,3-sialyltransferase from *Pasteurella multocida*.

Definition: One unit is defined as the amount of enzyme that catalyzes the formation of 1 µmol GM3βSph from LacβSph and CMP-Neu5Ac per minute at 37°C.

SE-2001 CMP-sialic acid synthetase (NmCSS)

Neu5Ac + CTP ⟶ CMP-Neu5Ac + PPi

EC: 2.7.7.43

Package: 500 U, 2500 U

Explanation: *E. coli* recombinant CMP-sialic acid synthase from *Neisseria meningitidis*.

Definition: One unit is defined as the amount of enzyme that catalyzes the formation of 1 μmol CMP-Neu5Ac from CTP and Neu5Ac per minute at 37°C.

SE-2002 L-fucokinase/GDP-fucose pyrophosphorylase (FKP)

L-Fuc + ATP ⟶ Fuc-1-P + ADP or Fuc-1-P + GTP ⟶ GDP-Fuc + PPi

EC: 2.7.1.52/2.7.7.30

Package: 5 U, 25 U, 200 U

Explanation: *E. coli* recombinant L-fucokinase/GDP-fucose pyrophosphorylase from *Bacteroides fragilis*.

Definition:One unit is defined as the amount of enzyme that consume 1 μmol ATP and L-Fuc to form Fuc-1-P per min at 37°C.

SE-2003 UDP-sugar pyrophosphorylase (BlUSP)

Gal-1-P + UTP ⟶ UDP-Gal + PPi

EC: 2.7.7.64

Package: 10 U, 50 U, 200 U

Explanation: *E. coli* recombinant UDP-sugar pyrophosphorylase lase from *Bifidobacterium longum*.

Definition: One unit is defined as the amount of enzyme that catalyzes the formation of 1 μmol of UDP-Gal from Gal-1-P and UTP per minute at 37°C.

SE-2004 N-acetylglucosamine-1-P uridyltransferase (AGX1)

GlcNAc-1-P + UTP ⟶ UDP-GlcNAc + PPi

EC: 2.3.1.157

Package: 5 U, 25 U, 200 U

Explanation: *E. coli* recombinant N-acetylglucosamine-1-P uridyltransferase from *Homo sapiens*.

Definition: One unit is defined as the amount of enzyme that catalyzes the formation of UDP-GlcNAc from GlcNAc-1-P and 1 μmol UTP per minute at 37°C.

SE-2005 UDP-sugar pyrophosphorylase (AtUSP)

Gal-1-P + UTP ⟶ UDP-Gal + PPi

EC: 2.7.7.64

Package: 10 U, 50 U, 200 U

Explanation: *E. coli* recombinant UDP-sugar pyrophosphorylase from *Arabidopsis thaliana*.

Definition: One unit is defined as the amount of enzyme that catalyzes the formation of UDP-Gal from Gal-1-P and UTP per minute at 37°C.

SE-2006 GDP-mannose pyrophosphorylase (PH0925-DN350)

Man-1-P + GTP ⟶ GDP-Man + PPi

EC: 2.7.7.13

Package: 10 U, 100 U

Explanation: *E. coli* recombinant GDP-mannose pyrophosphorylase from *Pyrococcus horikoshii*.

Definition: One unit is defined as the amount of enzyme that catalyzes the formation of 1 μmol GDP-Man from Man-1-P and GTP per minute at 37°C.

SE-2007 GlcNAc-1-P uridyltransferase (PmGlmU)

GlcNAc-1-P + UTP ⟶ UDP-GlcNAc + PPi

EC: 2.3.1.157

Package: 1 U, 5 U, 25 U

Explanation: *E. coli* recombinant GlcNAc-1-P uridyltransferase From *Pasteurella multocida*.

Definition: One unit is defined as the amount of enzyme that catalyzes the formation of 1 μmol UDP-GlcNAc from GlcNAc-1-P and UTP per minute at 37°C.

SE-2008 GlcNAc-1-P uridyltransferase (CjGlmU)

GlcNAc-1-P + UTP ⟶ UDP-GlcNAc + PPi

EC: 2.3.1.157

Package: 1 U, 5 U, 25 U

Explanation: *E.coli* recombinant GlcNAc-1-P uridyltransferase from *Campylobacter jejuni*.

Definition: One unit is defined as the amount of enzyme that catalyzes the formation of 1 μmol UDP-GlcNAc from GlcNAc-1-P and UTP per minute at 37°C.

Sugar-nucleotide synthase

SE-2009 Sucrose synthase (OcSUS1)

Sucrose + UDP ⟶ Fructose + UDP-glucose

EC: 2.4.1.13

Package: 1 U, 5 U, 25 U

Explanation: *E. coli* recombinant sucrose synthase from *Oraithogalum caudatum*.

Definition: One unit is defined as the amount of enzyme that catalyzes the formation of 1 μmol UDP-glucose from sucrose and UDP per minute at 37°C.

SE-2010 UDP-glucuronic acid decarboxylase (AtUXS3)

UDP-GlcA ⟶ UDP-xylose+CO_2

EC: 4.1.1.35

Package: 1 U, 5 U, 25 U

Explanation: *E.coli* recombinant UDP-glucuronic acid decarboxylase from *Arabidopsis thaliana*.

Definition: One unit is defined as the amount of enzyme that catalyzes the formation of 1 μmol UDP-xylose from UDP-GlcA per minute at 37°C.

SE-2011 Glucose-1-phosphate thymidyltransferase (EcRmlA)

α-D-glucose 1-phosphate + dTTP ⟶ diphosphate + dTDP-α-D-glucose

EC: 2.7.7.24

Package: 1 U, 5 U, 25 U

Explanation: *E. coli* recombinant glucose-1-phosphate thymidyltransferase from *Escherichia coli* K-12.

Definition: One unit is defined as the amount of enzyme that catalyzes the formation of 1 μmol dTDP-α-D-glucose from α-D-glucose 1-phosphate and dTTP per minute at 37°C.

SE-2013 UDP-Glc pyrophosphorylase (LmUGP)

α-D-glucose 1-phosphate + UTP ⟶ diphosphate + UDP-α-D-glucose

EC: 2.7.7.9

Package: 1 U, 5 U, 25 U

Explanation: *E. coli* recombinant UDP-Glc pyrophosphorylase from *Leishmania major*.

Definition: One unit is defined as the amount of enzyme that catalyzes the formation of 1 μmol UDP-α-D-glucose from α-D-glucose 1-phosphate and UTP per minute at 37°C.

Sucrose synthase

SE-2016 Sucrose synthase1 (AtSUS1)

Sucrose + UDP ⟶ Fructose + UDP-glucose

EC: 2.4.1.13

Package: 1 U, 5 U, 25 U

Explanation: *E. coli* recombinant Sucrose synthase1 from *Arabidopsis thaliana*.

Definition: One unit is defined as the amount of enzyme that catalyzes the formation of 1 μmol NDP-glucose from NDP and sucrose per minute at 37°C.

SE-2017 UDP-glucose dehydrogenase (PmHasB)

H_2O + 2NAD^+ + UDP-alpha-D-glucose ⟶ $3H^+$ + 2NADH + UDP-alpha-D-glucuronate

EC: 4.1.1.35

Package: 1 U, 5 U, 25 U

Explanation: *E.coli* recombinant UDP-glucose dehydrogenase from *Pasteurella multocida*.

Definition: One unit is defined as the amount of enzyme that catalyzes the formation of 1 μmol UDP-alpha-D-glucuronate from UDP-alpha-D-glucose per minute at 37°C.

SE-3078 UDP-Galactose/Glucose Pyrophosphorylase (CmUGGP)

galactose-1-phosphate + H^+ + UTP ⟶ UDP-galactose + diphosphate

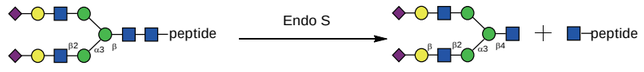
EC: 2.7.7.64

Package: 1 U, 5 U, 25 U

Explanation: *E. coli* recombinant glucose-1-phosphate thymidyltransferase from *Escherichia coli* K-12.

Definition: One unit is defined as the amount of enzyme required to catalyze the release of 1μmol of UDP-galactose from galactose-1-phosphate and UTP per minute at 25°C and pH 7.5.

SE-3001 Endo-β-N-acetylglucosaminidase(Double antenna complex type) (Endo S)



EC: 3.2.1.96

Package: 1000 U, 5000 U

Explanation: *E. coli* recombinant Endo-β-N-acetylglucosaminidase (Double antenna complex type)from *Streptococcus pyogenes*.

Definition: One unit is defined as the amount of enzyme required to remove > 95% of the carbohydrate from 5 μg of native mouse monoclonal IgG in 1 hour at 37°C in a total reaction volume of 10 μl.

SE-3002 Endo-β-N-acetylglucosaminidase (high-mannose, hybrid, bisect complex-type N-glycan) (Endo S2)

EC: 3.2.1.96

Package: 200 U, 2 KU

Explanation: *E. coli* recombinant Endo-β-N-acetylglucosaminidase (high-mannose, hybrid, bisect complex-type N-glycan) from *Streptococcus pyogenes*.

Definition: One unit is defined as the amount of enzyme required to remove > 95% of the carbohydrate from 5 μg of native mouse monoclonal IgG in 1 hour at 37°C in a total reaction volume of 10 μl.

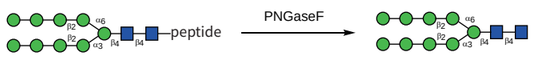
SE-3018 Endo-β-N-acetylglucosaminidase (high-mannose, hybrid, bisect complex-type N-glycan);Endo S2(D184M)

EC: 3.2.1.96

Explanation: Endo S2(D184M) can be used to transfer N-glycan oxazoline to GlcNAc-peptide.

Definition: One unit is defined as the amount of enzyme required to remove > 95% of the carbohydrate from 5 μg of native mouse monoclonal IgG in 1 hour at 37°C in a total reaction volume of 10 μl.

SE-3003 Peptide-N-Glycosidase F (high mannose, hybrid, and complex oligosaccharides from N-linked glycoproteins) (PNGase F)



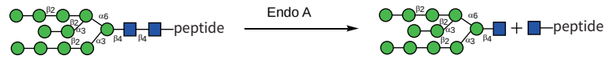
EC: 3.5.1.52

Package: 1500 U, 7500 U, 50000 U

Explanation: *E. coli* recombinant Peptide-N-Glycosidase F (high mannose, hybrid, and complex oligosaccharides from N-linked glycoproteins)from *Flavobacterium meningosepticum*.

Definition: One unit is defined as the amount of enzyme required to remove > 95% of the carbohydrate from 10 μg of denatured RNase B in 1 hour at 37°C in a total reaction volume of 10 μl.

SE-3004 Endo-β-N-acetylglucosaminidase (high-mannose, hybrid N-glycan) (Endo A)



EC: 3.2.1.96

Package: 200 U, 1 kU

Explanation: *E. coli* recombinant Endo-β-N-acetylglucosaminidase (high-mannose, hybrid N-glycan))from *Arthrobacter protophormiae*.

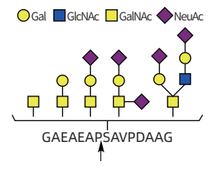
Definition: One unit is defined as the amount of enzyme required to remove > 95% of the carbohydrate from 10 μg of denatured RNase B in 1 hour at 37°C in a total reaction volume of 10 μl.

SE-3005 Glycopeptidase (IMPa)

EC: 5.3.1.52

Package: 1 U, 10 U

Explanation: *E. coli* recombinant peptidase from *Pseudomonas aeruginosa*.



Definition: One unit is defined as the amount of enzyme that catalyzes the formation of 1 μmol GalNAc from O-GalNAcylatedpeptides per minute at 37°C.

SE-3006 Endoglycoceramidase II (EGCaseII)

GM1-F + Sph ⟶ GM1-sph + F

EC: 3.2.1.123

Package: 1U, 5 U, 25 U

Explanation: *E. coli* recombinant endoglycoceramidase II from *Lactobacillus casei*.

Definition: One unit is defined as the amount of enzyme that catalyzes the formation of GM1-sph from 1 μmol sphingosine and GM1-F per minute at 37°C.

SE-3007 Endoglycoceramidases I (EGCaseI)

GM1-sph ⟶ GM1 + Sph

EC: 3.2.1.123

Package: 100 U

Explanation: *E. coli* recombinant endoglycoceramidases I from *Rhodococcus sp*.

Definition: One unit is defined as the amount of enzyme that catalyzes the formation of 1 μmol GM1 from GM1-sph per minute at 37°C.

Hydrolase

SE-3008 Purine nucleoside hydrolase (TbIAGNH)

Adenosine ⟶ D-ribose + Adenine

EC: 3.2.2.1

Package: 100 U , 1000 U

Explanation: *E. coli* recombinant nucleoside hydrolase from *Trypanosoma brucei* .

Definition: One unit is defined as the amount of enzyme that catalyzes the formation of 1 μmol adenine from adenosine per minute at 37°C.

SE-3009 Alkaline phosphatase (Apase)

AMP ⟶ Adenosine + Pi

EC: 3.1.3.1

Package: 100 U, 1 kU

Explanation: *E. coli* recombinant alkaline phosphatase from *Shewanella .sp.*

Definition: One unit is defined as the amount of enzyme that catalyzes the formation of 1 μmol adenosine from AMP per minute at 37°C.

SE-3010 Sialidase isoenzyme S (Ganglioside sialidase) (AuSialidase S)

Neu5Acα2, 3Galβ1, 4Glc ⟶ Galβ1, 4Glc + Neu5Ac

EC: 3.2.1.18

Package: 1 U, 5 U, 25 U

Explanation: *E. coli* recombinant Sialidase isoenzyme S from *Arthrobacter ureafaciens*.

Definition: One unit is defined as the amount of enzyme that catalyze the 6'SL generation of 1 μmol lactose and Neu5Ac per minute at 37°C.

SE-3011 Sialidase isoenzyme M2 (AuSialidase M2)

Neu5Acα2, 3Galβ1, 4Glc-Ceramide ⟶ Galβ1, 4Glc-Ceramide + Neu5Ac

EC: 3.2.1.18

Package: 1 mg, 10 mg

Explanation: *E.coli* recombinant Sialidase isoenzyme M2 from *Arthrobacter ureafaciens*.

Definition: One unit is defined as the amount of enzyme that catalyzes the formation of 1 μmol Neu5Ac from Neu5Acα2, 3Galβ1, 4Glc Ceramide per minute at 37°C.

Hydrolase

SE-3012 α2, 3/6-sialidase (BiNanH2)

Neu5Acα2, 3/6 Galβ1, 4Glc ⟶ Galβ1, 4Glc + Neu5Ac

EC: 3.2.1.18

Package: 1 kU, 5 kU

Explanation: α2, 3/6 Sialidase catalyzes the hydrolysis of α2, 3, α2, 6 linked sialic acid residues from glycoproteins and oligosaccharides,E. coli recombinant α 2, 3, 6 sialidase from *Bifidobacterium longum subsp. Infantis*.

Definition: One unit is defined as the amount of enzyme that catalyze the Neu5Acα2,6Galβ1,4Glc generation of 1 μmol lactose and Neu5Ac per minute at 37°C.

SE-3013 α2, 3/6/8-sialidase (SpNanA)

Neu5Acα2, 3/6/8 Neu5Ac ⟶ Neu5Ac

EC: 3.2.1.18

Package: 1 kU, 5 kU

Explanation: *E.coli* recombinant α 2,3/6/8 -sialidase from *Streptococcus pneumoniae*.

Definition: One unit is defined as the amount of enzyme that catalyzes the formation of 1 μmol Neu5Ac from Neu5Acα2, 3/6/8 Neu5Ac per minute at 37°C.

SE-3014 α2, 6-sialidase (Ps26PSia)

Neu5Acα2,6Galβ1,4Glc ⟶ Galβ1,4Glc + Neu5Ac

EC: 3.2.1.18

Package: 100U, 1000 U

Explanation: α2,6-sialidase catalyzes the hydrolysis of α2,6-linked sialic acid residues from glycoproteins and oligosaccharides, *E. coli* recombinant α2,6- sialidase from *Photobacterium sp*.

Definition: One unit is defined as the amount of enzyme that catalyzes the formation of 1 μmol Neu5Ac from Neu5Acα2,6Galβ1,4Glc per minute at 37°C.

SE-3015 β - Galactosidase (EcLacZ)

Galβ1, 4Glc ⟶ Gal + Glc

EC: 3.2.1.123

Package: 100 U, 1000 U

Explanation: β-galactosidase catalyzes the hydrolysis of Galβ1,4Glc, *E. coli* recombinant β-galactosidase from *E. coli*.

Definition: One unit is defined as the amount of enzyme that catalyzes the hydrolysis of 1 μmol Galβ1,4Glc per minute at 37°C.

Hydrolase

SE-3016 α1, 3/4-fucosidase (BbAfcB)

Galβ1,4(Fucα1,3)Glc ⟶ Galβ1,4Glc + Fuc

EC: 3.2.1.111

Package: 1 U, 10 U

Explanation: α1,3/4-fucosidase catalyzes the hydrolysis of α1,3-linked fucose residues from Galβ1,4(Fucα1,3)Glc, *E. coli* recombinant α1,3/4-fucosidase from *Bifidobacterium bifidum*.

Definition: One unit is defined as the amount of enzyme that catalyzes the hydrolysis of 1 μmol Galβ1,4(Fucα1,3)Glc per minute at 37°C.

SE-3017 α1, 2-fucosidase (BbAfcA)

Fucα1,2Galβ1,4Glc ⟶ Galβ1,4Glc + Fuc

EC: 3.2.1.111

Package: 1 U, 10 U

Explanation: α 1-2 fucosidase catalyzes the hydrolysis of α 1-2 linked fucose residues from Fucα1,2Galβ1,4Glc, *E. coli* recombinant α 1-2 fucosidase from *Bifidobacterium bifidum*.

Definition: One unit is defined as the amount of enzyme that catalyzes the hydrolysis of 1 μmol Fucα1,2Galβ1,4Glc per minute at 37°C.

SE-3019 Inorganic pyrophosphatase (PmPPA)

$P2O7^{-4} + H_2O \longrightarrow 2HPO_4^{-2}$

EC: 3.6.1.1

Package: 100 U, 1 kU

Explanation: *E.coli* recombinant inorganic pyrophosphatase from *Pasteurella multocida*.

Definition: One unit is defined as the amount of enzyme that catalyzes the formation of 1 μmol inorganic phosphate from inorganic pyrophosphate per minute at 37°C.

SE-3024 Cyclomaltodextrinase (TsCDase)

β-cyclodextrin ⟶ $(Glc\alpha1,4)_6Glc$

EC: 3.2.1.54

Package: 1 kU ,5 kU

Explanation: *E.coli* recombinant cyclomaltodextrinase from *Thermococcus* sp. Strain B1001.

Definition: One unit is defined as the amount of enzyme that catalyzes the formation of 1 μmol (Glca1,4)6Glc fromβ-cyclodextrin minute at 80°C, pH 5.0.

Hydrolase

SE-3025 α-glucosidase (TmAglA)

Maltose + H_2O ⟶ 2Glucose

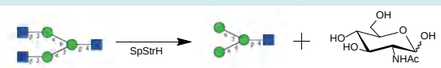
EC: 3.2.1.20

Package: 10 U,100 U

Explanation: *E.coli* recombinant α-glucosidase from *Thermotoga maritima*.

Definition: Enzyme activity is defined as the amount of enzyme required to hydrolyze 1 μmol maltose per minute to produce glucose at 80°C.

SE-3026 β-N-acetylhexosaminidase (SpStrH)



EC: 3.2.1.52

Package: 1 U， 10 U

Explanation: *E.coli* recombinant β-N-acetylhexosaminidase from *Streptococcus pneumoniae*.

Definition: The enzyme activity unit is defined as the amount of enzyme required to hydrolyze GlcNAcβ1,2Manα1,3 (GlcNAcβ1,2Manα1,6) Manβ1,4GlcNAc to release 1μmol GlcNAc per hour at 37℃.

SE-3027 Sucrose phosphorylase (BlSuP)

Phosphate + sucrose ⟶ alpha-D-glucose 1-phosphate + D-fructose

EC: 2.4.1.7

Package: 10 U, 100 U

Explanation: *E.coli* recombinant Sucrose phosphorylase from *Bifidobacterium longum*.

Definition: One unit is defined as the amount of enzyme required to catalyze the hydrolysis of 1μmol sucrose per minute at 37°C.

SE-3028 α 1,2-fucosidase (Bli2Fuc)

Fucα1,2Galβ1,4Glc ⟶ Galβ1,4Glc + Fuc

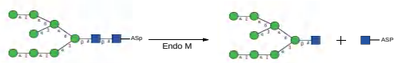
EC: 3.2.1.111

Package: 1 U, 10 U

Explanation: *E.coli* recombinant α 1,2-Fucosidase from *Bifidobacterium longum*.

Definition: One unit is defined as the amount of enzyme that catalyzes the hydrolysis of 1 μmol Fucα1,2Galβ1,4Glc per minute at 37°C.

SE-3029 Endo-β-N-acetylglucosaminidase M (EndoM)



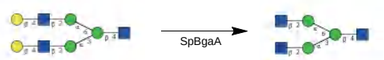
EC: 3.2.1.96

Package: 1 kU, 5 kU

Explanation: *E.coli* recombinant Endo-β-N-acetylglucosaminidase M from *Mucor hiemalis*.

Definition: One unit is defined as the amount of enzyme required to remove > 95% of the carbohydrate from 10 μg of denatured RNase B in 1 hour at 37°C in a total reaction volume of 10 μl.

SE-3030 β-Galactosidase (SpBgaA)



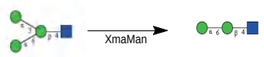
EC: 3.2.1.23

Package: 10 U, 100 U

Explanation: *E.coli* recombinant β-Galactosidase from *Streptococcus pneumoniae*.

Definition: One unit is defined as the amount of enzyme that catalyzes the hydrolysis of 1 μmol LacNAc per minute at 37°C.

SE-3031 α1, 3-Mannosidase (XmaMan)



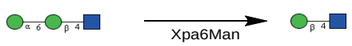
EC: 3.2.1.114

Package: 10 U, 100 U

Explanation: *E.coli* recombinant α1,3-mannosidase from *Xanthomonas manihotis*.

Definition: The enzyme activity unit is defined as the amount of enzyme required to hydrolyze 1nmol Manα1,6(Manα1,3)Manβ1,4GlcNAc in a 10ul system at 37°C to Manα1,6Manβ1,4GlcNAc per hour.

SE-3032 α1, 6-Mannosidase (Xpα6Man)



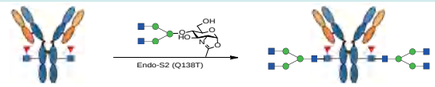
EC: 3.2.1.24

Package: 10 U, 100 U

Explanation: *E.coli* recombinant α l,6-mannosidase from *Xanthomonas phaseoli*.

Definition: The enzyme activity unit is defined as the amount of enzyme required to hydrolyze 1nmol Manα1,6Manβ1,4GlcNAc to Manβ1,4 GlcNAc per hour in a 10ul system at 37°C.

SE-3033 Endo-β-N-acetylglucosaminidase mutant; Endo S2 (T138Q)



EC: 3.2.1.96

Package: 10 kU, 100 kU

Explanation: *E.coli* recombinant Endo S2 mutant T138Q from *Streptococcus pyogenes*.

Definition: One unit is defined as the amount of enzyme required to remove > 95% of the G0N1 transferred from G0N1-oxa to 5 μg of required enzyme amount on the hydrolyzed trastuzumab in 1 hour at 37°C in a total reaction volume of 10 μl.

SE-3034 Endo-β-N-acetylglucosaminidase F2 (Endo F2)

EC: 3.2.1.96

Package: 5 kU, 50 kU

Explanation: *E.coli* recombinant Endo-β-N-acetylglucosaminidase F2 from *Elizabethkingia meningosepticum*.

Definition: One unit is defined as the amount of enzyme required to remove > 95% of the carbohydrate from 10 μg of denatured Porcine Fibrinogen in 1 hour at 37°C in a total reaction volume of 10 μl.

SE-3035 β-Glucosidase (CoGH1A)

pNP-β-D-glucose ⟶ glucose + pNP

EC: 3.2.1.21

Package: 10 U, 100 U

Explanation: *E.coli* recombinant β-Glucosidase from *Caldicellulosiruptor owensensis*.

Definition: One unit is defined as the amount of enzyme that catalyzes the hydrolysis of 1 μmol pNP-β-D-glucose per minute at 80°C.

SE-3036 Maltohexaose-forming α-amylase (KpG6A)

Starch ⟶ maltohexaose

EC: 3.2.1.98

Package: 1 U, 10 U

Explanation: *E.coli* recombinant Maltohexaose-forming α-amylase from *Klebsiella pneumoniae*.

Definition: Enzyme activity is defined as the amount of enzyme required to catalyze the formation of 1μmol maltohexose at 35°C for 1 hour.

Hydrolase

SE-3038 Inorganic pyrophosphatase (ScPPA)

$P_2O_7^{-4} + H_2O \longrightarrow 2HPO_4^{-2}$

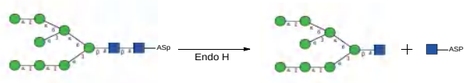
EC: 3.6.1.1

Package: 1000 U

Explanation: *E.coli* recombinant Inorganic pyrophosphatase from *Saccharomvces cerevisiae*.

Definition: One unit is defined as the amount of enzyme that catalyzes the formation of 1 μmol inorganic phosphate from inorganic pyrophosphate per minute at 37°C.

SE-3040 Endo-β-N-acetylglucosaminidase H (Endo H)



EC: 3.2.1.96

Package: 50 kU, 500 kU

Explanation: *E. coli* recombinant Endo-β-N-acetylglucosaminidase H from *Streptomyces plicatus*.

Definition: At 37°C, with a total reaction volume of 10μl, the amount of enzyme required for the cleavage of cleavage of >95% carbohydrates of 10 μg human RNase B in 1 hour is defined as one unit.

SE-3041 Endo-β-N-acetylglucosaminidase D (Endo D)

EC: 3.2.1.96

Package: 100 U, 1000 U

Explanation: *E. coli* recombinant Endo-β-N-acetylglucosaminidase D from *Streptococcus pneumoniae*.

Definition: At 37°C, with a total reaction volume of 10μl, the amount of enzyme required for the cleavage of > 95% carbohydrates of 10 μg denatured Fetuin within 1 hour is defined as one unit.

SE-3042 Endo-β-N-acetylglucosaminidase F3 (Endo F3)

EC: 3.2.1.96

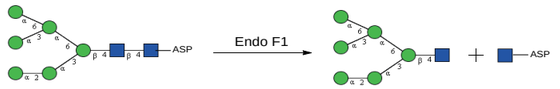
Package: 100 U, 1000 U

Explanation: *E.coli* recombinant Endo-β-N-acetylglucosaminidase F3 from *Flavobacterium meningosepticum*.

Definition: At 37°C, with a total reaction volume of 10μl, the amount of enzyme required to cleave > 95% carbohydrates of 10 μg human IgG within 1 hour is defined as one unit.

Hydrolase

SE-3043 Endo-β-N-acetylglucosaminidaseF1 (Endo F1)



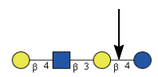
EC: 3.2.1.96

Package: 300 U, 1000 U

Explanation: *E.coli* recombinant Endo-β-N-acetylglucosaminidase F1 from *Elizabethkingia meningoseptica*.

Definition: The amount of enzyme required to remove more than 95% of carbohydrates from 5 μg RNaseB at 37°C for 1 hour in a reaction system of 10 μl.

SE-3044 Endo-β-galactosidase (BfEndoβGal)



EC: 3.2.1.103

Package: 200 U, 20000 U

Explanation: *E. coli* recombinant Endo-β-galactosidase from *Bacteroides fragilis*.

Definition: One unit is defined as the amount of enzyme releasing 1nmol of reducing sugar from LNnT per hour at 37°C, pH 5.8.

SE-3046 α1-3,4,6 Galactosidase (CaαGal)

EC: 3.2.1.22

Package: 2000 U, 20000 U

Explanation: *E. coli* recombinant α1-3,4,6 Galactosidase from *Coffea arabica*.

Definition: One unit is defined as the amount of enzyme releasing 1nmol galactose per hour from Galα1,3Galβ1,4 Glc at 37°C and pH 5.5.

SE-3047 α1-3,6 Galactosidase (Xmα36Gal)

EC: 3.2.1.22

Package: 10 U, 100 U

Explanation: *E.coli* recombinant α1-3,6 Galactosidase from *Xanthomonas manihotis*.

Definition: One unit is defined as the amount of enzyme releasing 1 nmol galactose per hour from Galα1,3Galβ1,4Glc at 37°C, pH 5.5.

Hydrolase

SE-3048 β1-3 Galactosidase (Spβ13Gal)

EC: 3.2.1.23

Package: 100 U, 1000 U

Explanation: *E.coli* recombinant β1-3 Galactosidase from *Streptococcus pneumoniae*.

Definition: One unit is defined as the amount of enzyme that releases 1 nmol galactose per minute from Galβ1,3GlcNAcβ1,3Galβ1,4Glc at 37°C and pH 5.0.

SE-3049 β1-3,6 Galactosidase (Amβ36Gal)

EC: 3.2.1.23

Package: 400 U, 4000 U

Explanation: *E. coli* recombinant β1-3,6 Galactosidase from *Akkermansia muciniphila*.

Definition: One unit is defined as the amount of enzyme that releases 1 nmol galactose per minute from Galβ1,3GlcNAcβ1,3Galβ1,4Glc at 37°C and pH 5.0.

SE-3050 β1-3,4,6 Galactosidase

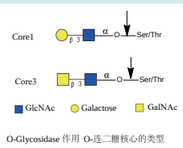
EC: 3.2.1.23

Package: 100 U, 1000 U

Explanation: Mixture of β1-3,6 Galactosidase and β1-4 Galactosidase.

Definition: One unit is defined as the amount of enzyme that releases 1nmol galactose per minute from Galβ1,3GlcNAcβ1,3Galβ1,4Glc at 37°C and pH 5.0.

SE-3051 O-Glycosidase (SpEng)



O-Glycosidase 作用 O-连二糖核心的类型

EC: 3.2.1.97

Package: 10000 U, 100 kU

Explanation: *E.coli* recombinant O-Glycosidase from *Streptococcus pneumoniae*.

Definition: One unit is defined as the amount of enzyme required to catalyze the release of 1 nmol Galβ1,3GalNAc per minute at 37°C, pH 5.5.

Hydrolase

SE-3052 CMP N-glycosidase (SrMilB)

dCMP ⟶ 2' - deoxyribo - 5' - phosphate + cytosine

EC: 3.2.1.96

Package: 100 U, 1000 U

Explanation: *E.coli* recombinant CMP N-glycosidase from *Streptomyces rimofaciens*.

Definition: One unit is defined as the amount of enzyme required to hydrolyze 1μmol dCMP per minute at 37°C.

SE-3053 β-N-acetylhexosaminidase (SnHEX)

EC: 3.2.1.52

Package: 100 U, 1000 U

Explanation: *E. coli* recombinant β-N-acetylhexosaminidase from *Stackebrandtia nassauensis*.

Definition: One unit is defined as the amount of enzyme required to hydrolyze the 1μmol GlcNacβ1, 3Galβ1,4Glc per minute at 37°C.

SE-3054 α-N-acetylgalactosaminidase (CpAagA)

EC: 3.2.1.49

Package: 10 U, 100 U

Explanation: *E. coli* recombinant α-N-acetylgalactosaminidase from *Clostridium perfringens*.

Definition: One unit is defined as the amount of enzyme required to hydrolyze 1 μmol Blood type A trisacharide per minute at 37°C.

SE-3055 β-fructosidase (TmBfrA)

EC: 3.2.1.26

Package: 10 U, 100 U

Explanation: *E.coli* recombinant β-fructosidase from *Thermotoga maritima*.

Definition: One unit is defined as the amount of enzyme required to hydrolyze 1 μmol sucrose per minute at 60°C.

Hydrolase

SE-3056 Cellobiose phosphorylase (CgCBP)

D-cellobiose + phosphate ⟶ alpha-D-glucose 1-phosphate + D-glucose

EC: 2.4.1.20

Package: 100 U, 1000 U

Explanation: *E.coli* recombinant cellobiose phosphorylase from *Cellulomonas gilvus*.

Definition: One unit is defined as the amount of enzyme required to hydrolyze 1 μmol cellobiose per minute at 37°C.

SE-3057 1,4-β-mannosyl-N-acetylglucosamine phosphorylase (BtMPase)

4-O-beta-D-mannopyranosyl-N-acetyl-D-glucosamine + phosphate ⟶ alpha-D-mannose 1-phosphate + N-acetyl-D-glucosamine

EC: 2.4.1.320

Package: 400 U, 4000 U

Explanation: *E. coli* recombinant 1,4-β-mannosyl-N-acetylglucosamine phosphorylase from *Bacteroides thetaiotaomicron*.

Definition: One unit is defined as the amount of enzyme required to hydrolyze 1μmol 4-O-beta-D-mannopyranosyl-N-acetyl-D-glucosamine per minute at 37°C.

SE-3058 N,N'-diacetylchitobiose phosphorylase (VpChBP)

N,N'-diacetylchitobiose + phosphate ⟶ N-acetyl-alpha-D-glucosamine 1-phosphate + N-acetyl-D-glucosamine

EC: 2.4.1.280

Package: 100 U, 1000 U

Explanation: *E. coli* recombinant N,N'-diacetylchitobiose phosphorylase from *Vibrio proteolyticus*.

Definition: One unit is defined as the amount of enzyme required to hydrolyze 1μmol N,N'-diacetylchitobiose per minute at 37°C.

SE-3059 α1-4 Galactosidase (Bfα4Gal)

EC: 3.2.1.22

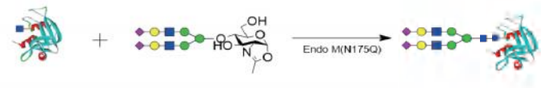
Package: 100 U, 1000 U

Explanation: *E.coli* recombinant α1-4 Galactosidase from *Bacteroides fragilis*.

Definition: One unit is defined as the amount of enzyme releasing 1 nmol galactose per hour from Galα1,4Galβ1,4Glc at 37°C and pH 4.5.

Hydrolase

SE-3060 Endo-M(N175Q)



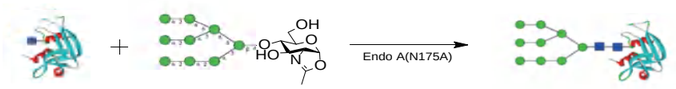
EC: 3.2.1.96

Package: 1 mg, 10 mg

Explanation: *E.coli* recombinant Endo M mutant N175Q from *Mucor hiemalis*.

Definition: The amount of enzyme required to transfer 95% of G0N1 from GoN1-oxazoline to 5ug hydrolyzed SGP in a reaction system of 10 μl at 37°C for 1 hour.

SE-3061 Endo-A (N171A)



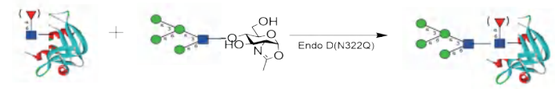
EC: 3.2.1.96

Package: 1 mg, 10 mg

Explanation: *E. coli* recombinant Endo-A mutant N171A from *Arthrobacter protophormiae*.

Definition: The amount of enzyme required to transfer 95% of Man9 from Man9-oxazoline to 5 ug hydrolyzed SGP in a reaction system of 10 μl at 37°C for 1 hour.

SE-3062 SpEndo-D (N322Q)



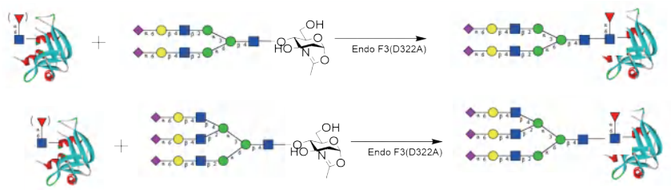
EC: 3.2.1.96

Package: 1 mg, 10 mg

Explanation: *E. coli* recombinant Endo D mutant N322Q from *Streptococcus pneumoniae*.

Definition: The amount of enzyme required to transfer 95% of Man5 from Man5-oxazoline to 5 ug hydrolyzed SGP in a reaction system of 10 μl at 37°C for 1 hour.

SE-3063 Endo-F3 (D165A)



EC: 3.2.1.96

Package: 1 mg, 10 mg

Explanation: *E.coli* recombinant Endo F3 mutant D165A from *Flavobacterium meningosepticum*.

Definition: The amount of enzyme required to transfer 95% of triantennary N-glycan from triantennary N-glycan-oxazoline to 5 ug hydrolyzed IgG in a reaction system of 10 μl at 37°C for 1 hour.

SE-3038 Inorganic pyrophosphatase (ScPPA)

$P_2O_7^{-4}+H_2O \longrightarrow 2HPO_4^{-2}$

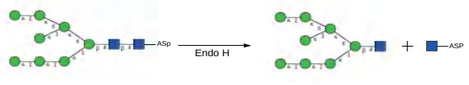
EC: 3.6.1.1

Package: 1000 U

Explanation: *E.coli* recombinant Inorganic pyrophosphatase from *Saccharomvces cerevisiae*.

Definition: One unit is defined as the amount of enzyme that catalyzes the formation of 1 μmol inorganic phosphate from inorganic pyrophosphate per minute at 37°C.

SE-3040 Endo-β-N-acetylglucosaminidase H (Endo H)



EC: 3.2.1.96

Package: 50 kU, 500 kU

Explanation: *E. coli* recombinant Endo-β-N-acetylglucosaminidase H from *Streptomyces plicatus*.

Definition: At 37°C, with a total reaction volume of 10μl, the amount of enzyme required for the cleavage of cleavage of > 95% carbohydrates of 10 μg human RNase B in 1 hour is defined as one unit.

SE-3041 Endo-β-N-acetylglucosaminidase D (Endo D)

EC: 3.2.1.96

Package: 100 U, 1000 U

Explanation: *E. coli* recombinant Endo-β-N-acetylglucosaminidase D from *Streptococcus pneumoniae*.

Definition: At 37°C, with a total reaction volume of 10μl, the amount of enzyme required for the cleavage of > 95% carbohydrates of 10 μg denatured Fetuin within 1 hour is defined as one unit.

SE-3042 Endo-β-N-acetylglucosaminidase F3 (Endo F3)

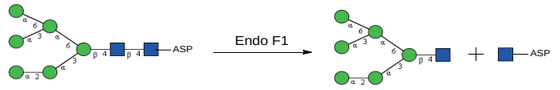
EC: 3.2.1.96

Package: 100 U, 1000 U

Explanation: *E.coli* recombinant Endo-β-N-acetylglucosaminidase F3 from *Flavobacterium meningosepticum*.

Definition: At 37°C, with a total reaction volume of 10μl, the amount of enzyme required to cleave > 95% carbohydrates of 10 μg human IgG within 1 hour is defined as one unit.

SE-3043 Endo-β-N-acetylglucosaminidaseF1 (Endo F1)



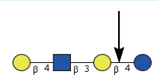
EC: 3.2.1.96

Package: 300 U, 1000 U

Explanation: *E.coli* recombinant Endo-β-N-acetylglucosaminidase F1 from *Elizabethkingia meningoseptica*.

Definition: The amount of enzyme required to remove more than 95% of carbohydrates from 5 μg RNaseB at 37°C for 1 hour in a reaction system of 10 μl.

SE-3044 Endo-β-galactosidase (BfEndoβGal)



EC: 3.2.1.103

Package: 200 U, 20000 U

Explanation: *E. coli* recombinant Endo-β-galactosidase from *Bacteroides fragilis*.

Definition: One unit is defined as the amount of enzyme releasing 1nmol of reducing sugar from LNnT per hour at 37°C, pH 5.8.

SE-3046 α1-3,4,6 Galactosidase (CaαGal)

EC: 3.2.1.22

Package: 2000 U, 20000 U

Explanation: *E. coli* recombinant α1-3,4,6 Galactosidase from *Coffea arabica*.

Definition: One unit is defined as the amount of enzyme releasing 1nmol galactose per hour from Galα1,3Galβ1,4 Glc at 37°C and pH 5.5.

SE-3047 α1-3,6 Galactosidase (Xmα36Gal)

EC: 3.2.1.22

Package: 10 U, 100 U

Explanation: *E.coli* recombinant α1-3,6 Galactosidase from *Xanthomonas manihotis*.

Definition: One unit is defined as the amount of enzyme releasing 1nmol galactose per hour from Galα1,3Galβ1,4Glc at 37°C, pH 5.5.

Hydrolase

SE-3048 β1-3 Galactosidase (Spβ13Gal)

EC: 3.2.1.23

Package: 100 U, 1000 U

Explanation: *E.coli* recombinant β1-3 Galactosidase from *Streptococcus pneumoniae*.

Definition: One unit is defined as the amount of enzyme that releases 1nmol galactose per minute from Galβ1,3GlcNAcβ1,3Galβ1,4Glc at 37°C and pH 5.0.

SE-3049 β1-3,6 Galactosidase (Amβ36Gal)

EC: 3.2.1.23

Package: 400 U, 4000 U

Explanation: *E. coli* recombinant β1-3,6 Galactosidase from *Akkermansia muciniphila*.

Definition: One unit is defined as the amount of enzyme that releases 1nmol galactose per minute from Galβ1,3GlcNAcβ1,3Galβ1,4Glc at 37°C and pH 5.0.

SE-3050 β1-3,4,6 Galactosidase

EC: 3.2.1.23

Package: 100 U, 1000 U

Explanation: Mixture of β1-3,6 Galactosidase and β1-4 Galactosidase.

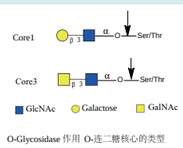
Definition: One unit is defined as the amount of enzyme that releases 1nmol galactose per minute from Galβ1,3GlcNAcβ1,3Galβ1,4Glc at 37°C and pH 5.0.

SE-3051 O-Glycosidase (SpEng)

EC: 3.2.1.97

Package: 10000 U, 100 kU

Explanation: *E.coli* recombinant O-Glycosidase from *Streptococcus pneumoniae*.



O-Glycosidase 作用 O-连二糖核心的类型

Definition: One unit is defined as the amount of enzyme required to catalyze the release of 1nmol Galβ1,3GalNAc per minute at 37°C, pH 5.5.

Hydrolase

SE-3052 CMP N-glycosidase (SrMilB)

dCMP ⟶ 2' - deoxyribo - 5' - phosphate + cytosine

EC: 3.2.1.96

Package: 100 U, 1000 U

Explanation: *E.coli* recombinant CMP N-glycosidase from *Streptomyces rimofaciens*.

Definition: One unit is defined as the amount of enzyme required to hydrolyze 1μmol dCMP per minute at 37°C.

SE-3053 β-N-acetylhexosaminidase (SnHEX)

EC: 3.2.1.52

Package: 100 U, 1000 U

Explanation: *E. coli* recombinant β-N-acetylhexosaminidase from *Stackebrandtia nassauensis*.

Definition: One unit is defined as the amount of enzyme required to hydrolyze the 1μmol GlcNacβ1,3 Galβ1,4Glc per minute at 37°C.

SE-3054 α-N-acetylgalactosaminidase (CpAagA)

EC: 3.2.1.49

Package: 10 U, 100 U

Explanation: *E. coli* recombinant α-N-acetylgalactosaminidase from *Clostridium perfringens*.

Definition: One unit is defined as the amount of enzyme required to hydrolyze 1μmol Blood type A trisacharide per minute at 37°C.

SE-3055 β-fructosidase (TmBfrA)

EC: 3.2.1.26

Package: 10 U, 100 U

Explanation: *E.coli* recombinant β-fructosidase from *Thermotoga maritima*.

Definition: One unit is defined as the amount of enzyme required to hydrolyze 1μmol sucrose per minute at 60°C.

Hydrolase

SE-3056 Cellobiose phosphorylase (CgCBP)

D-cellobiose + phosphate ⟶ alpha-D-glucose 1-phosphate + D-glucose

EC: 2.4.1.20

Package: 100 U, 1000 U

Explanation: *E.coli* recombinant cellobiose phosphorylase from *Cellulomonas gilvus*.

Definition: One unit is defined as the amount of enzyme required to hydrolyze 1 μmol cellobiose per minute at 37°C.

SE-3057 1,4-β-mannosyl-N-acetylglucosamine phosphorylase (BtMPase)

4-O-beta-D-mannopyranosyl-N-acetyl-D-glucosamine + phosphate ⟶ alpha-D-mannose 1-phosphate + N-acetyl-D-glucosamine

EC: 2.4.1.320

Package: 400 U, 4000 U

Explanation: *E. coli* recombinant 1,4-β-mannosyl-N-acetylglucosamine phosphorylase from *Bacteroides thetaiotaomicron*.

Definition: One unit is defined as the amount of enzyme required to hydrolyze 1μmol 4-O-beta-D-mannopyranosyl-N-acetyl-D-glucosamine per minute at 37°C.

SE-3058 N,N'-diacetylchitobiose phosphorylase (VpChBP)

N,N'-diacetylchitobiose + phosphate ⟶ N-acetyl-alpha-D-glucosamine 1-phosphate + N-acetyl-D-glucosamine

EC: 2.4.1.280

Package: 100 U, 1000 U

Explanation: *E. coli* recombinant N,N'-diacetylchitobiose phosphorylase from *Vibrio proteolyticus*.

Definition: One unit is defined as the amount of enzyme required to hydrolyze 1μmol N,N'-diacetylchitobiose per minute at 37°C.

SE-3059 α1-4 Galactosidase (Bfα4Gal)

EC: 3.2.1.22

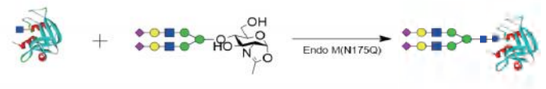
Package: 100 U, 1000 U

Explanation: *E.coli* recombinant α1-4 Galactosidase from *Bacteroides fragilis*.

Definition: One unit is defined as the amount of enzyme releasing 1nmol galactose per hour from Galα1,4Galβ1,4Glc at 37°C and pH 4.5.

Hydrolase

SE-3060 Endo-M (N175Q)



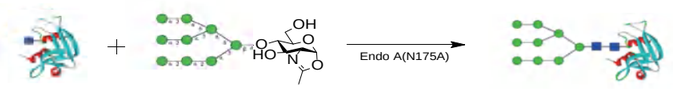
EC: 3.2.1.96

Package: 1 mg, 10 mg

Explanation: *E.coli* recombinant Endo M mutant N175Q from *Mucor hiemalis*.

Definition: The amount of enzyme required to transfer 95% of G0N1 from GoN1-oxazoline to 5ug hydrolyzed SGP in a reaction system of 10 μl at 37°C for 1 hour.

SE-3061 Endo-A (N171A)



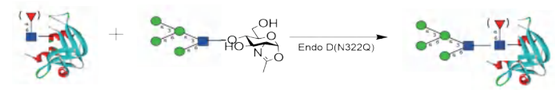
EC: 3.2.1.96

Package: 1 mg, 10 mg

Explanation: *E. coli* recombinant Endo M mutant N175Q from *Arthrobacter protophormiae*.

Definition: The amount of enzyme required to transfer 95% of Man9 from Man9-oxazoline to 5ug hydrolyzed SGP in a reaction system of 10 μl at 37°C for 1 hour.

SE-3062 SpEndo-D (N322Q)



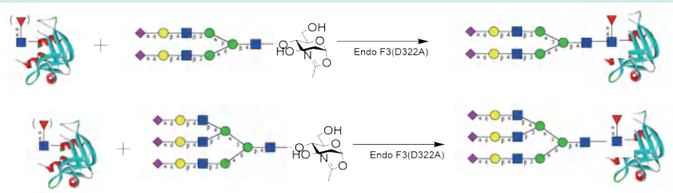
EC: 3.2.1.96

Package: 1 mg, 10 mg

Explanation: *E. coli* recombinant Endo D mutant N322Q from *Streptococcus pneumoniae*.

Definition: The amount of enzyme required to transfer 95% of Man5 from Man5-oxazoline to 5ug hydrolyzed SGP in a reaction system of 10 μl at 37°C for 1 hour.

SE-3063 Endo-F3 (D165A)



EC: 3.2.1.96

Package: 1 mg, 10 mg

Explanation: *E.coli* recombinant Endo F3 mutant D165A from *Flavobacterium meningosepticum*.

Definition: The amount of enzyme required to transfer 95% of triantennary N-glycan from triantennary N-glycan-oxazoline to 5ug hydrolyzed IgG in a reaction system of 10 μl at 37°C for 1 hour.

Hydrolase

SE-3064 β-1,2-glucooligosaccharides (PdSGL)

EC: 3.2.1.333

Package: 100 U, 1000 U

Explanation: *E.coli* recombinant Eβ-1,2-glucooligosaccharides from *Parabacteroides distasonis*.

Definition: One unit is defined as the amount of enzyme that releases 1nmol glucose per minute from (Glcβ1,2Glc) 2 at 37°C and pH 5.0.

SE-3065 Alkaline GH49 Dextranase (AoDexKQ)

EC: 3.2.1.11

Package: 400 U, 4000 U

Explanation: *E. coli* recombinant EAlkaline GH49 Dextranase from *Arthrobacter oxydans KQ11*.

Definition: One unit is defined as the amount of enzyme that releases 1nmol isomaltohexose per minute from Dextran 70 at 50°C and pH 5.0.

SE-3066 SUMO-specific protease (ScUlp1)

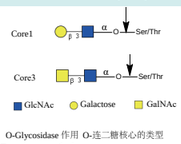
EC: 3.4.22.68

Package: 100 U, 1000 U

Explanation: *E. coli* recombinant SUMO-specific protease from *Saccharomyces cerevisiae*.

Definition: 1 unit is defined as the amount of enzyme required to hydrolyze 10 μg SUMO protein than 95% of Proteins with SUMO tags within 1 hour at 37°C with a total reaction volume of 10 μl.

SE-3067 Endo-1,5-α-arabinanase (Bl)



EC: 3.2.1.99

Package: 10000 U, 100 kU

Explanation: *E.coli* recombinant Endo-1,5-α-arabinanase from *Streptococcus pneumoniae*.

Definition: One unit is defined as the amount of enzyme required to catalyze the release of 1μmol of reducing sugar from debranched araban per minute at 35°C, pH6.0.

Hydrolase

SE-3068 a-mannosidase (TmMan)

dCMP ⟶ 2' - deoxyribo - 5' - phosphate + cytosine

EC: 3.2.1.114

Package: 100 U, 1000 U

Explanation: *E.coli* recombinant a-mannosidase from *Thermotoga maritima*.

Definition: One unit of a-mannosidase activity was defined as the amount of enzyme that released 1μmol of p-nitrophenol in 1 min at 2.5mM CoCl2,70°C, pH7.0.

SE-3069 Endo-dextranase (BtDex)

EC: 3.2.1.11

Package: 100 U, 1000 U

Explanation: *E. coli* recombinant Endo-dextranase from from *Bacteroides thetaiotaomicron*.

Definition: One unit is defined as the amount of enzyme required to catalyze the release of 1μmol of isomaltotetraose from Dextran70 per minute at 37°C, pH6.0.

SE-3070 Neopullulanase (BpAmy117)

pullulan ⟶ Isomaltose+ Panose

EC: 3.2.1.135

Package: 10 U, 100 U

Explanation: *E. coli* recombinant neopullulanase from *B. pseudofirmus 703*.

Definition: One unit is defined as the amount of enzyme required to catalyze the release of 1μmol of Panose from pullulan per minute at 37°C, pH6.0.

SE-3073 β-N-acetylhexosaminidase (BbBbhI)

GlcNAcβ1,3Galβ1,4Glc ⟶ GlcNAc + lactose

EC: 3.2.1.52

Package: 10 U, 100 U

Explanation: *E.coli* recombinant β-N-acetylhexosaminidase from *C bifidobacteria*.

Definition: One unit is defined as the amount of enzyme required to catalyze the release of 1μmol of GlcNAc from GlcNAcβ1,3Galβ1,4Glc per minute at 37°C, pH6.0.

Hydrolase

SE-3074 Endo-b-galactosidase (FkEndoβGal)

Galβ1,4GlcNAcβ1,3Galβ1,4Glc ⟶ Glc+Galβ1,4GlcNAcβ1,3Gal

EC: 3.2.1.103

Package: 100 U, 1000 U

Explanation: *E.coli* recombinant Endo-b-galactosidase from *Flavobacterium keratolyticus*.

Definition: One unit is defined as the amount of enzyme required to catalyze the release of 1μmol of galactose from Galβ1, 4-GlcNAc per minute at 37°C, pH6.0.

SE-3075 HeparinaseI(BcHepI)

sodium heparin ⟶ unsaturated uronic acid

EC: 4.2.2.7

Package: 100 U, 1000 U

Explanation: *E. coli* recombinant heparinaseI from *Bacteroides cellulosilyticus*.

Definition: One unit is defined as the amount of enzyme required to catalyze the release of 0.1μmol of unsaturated uronic acid from sodium heparin per minute at at 25°C and pH 7.5.

SE-3076 HeparinaseII (FhHepII)

pullulan ⟶ Isomaltose+ Panose

EC: 4.2.2.8

Package: 10 U, 100 U

Explanation: *E. coli* recombinant HeparinaseII from *Flavobacterium heparinum*.

Definition: One unit is defined as the amount of enzyme required to catalyze the release of 0.1μmol of unsaturated uronic acid from sodium heparin per minute at at 25°C and pH 7.5.

SE-3077 HeparinaseIII (FhHepIII)

GlcNAcβ1,3Galβ1,4Glc ⟶ GlcNAc + lactose

EC: 4.2.2.8

Package: 10 U, 100 U

Explanation: *E.coli* recombinant HeparinaseIII from *Flavobacterium heparinum*.

Definition: One unit is defined as the amount of enzyme required to catalyze the release of 0.1μmol of unsaturated uronic acid from sodium heparin per minute at at 25°C and pH 7.5.

Generic type

SE-4001 UDP-Glc dehydrogenase (UGDH)

UDP-glucose + NAD^+ ⟶ UDP-glucuronic + NADH

EC: 1.1.1.22

Package: 1 U, 5 U, 10 U

Explanation: *E. coli* recombinant UDP-Glc dehydrogenase from *Streptococcus pyogenes*.

Definition: One unit will oxidize 1.0 μmol of UDP-glucose to UDP-glucuronic acid per minute at pH 8.7 at 25°C.

SE-4002 Glucose dehydrogenase (BsGDH)

D-glucose + $NADP^+$ ⟶ D-Glucuronic + NADPH

EC: 1.1.1.47

Package: 1 U, 5 U, 25 U

Explanation: *E. coli* recombinant glucose dehydrogenase from *Bacillus subtilis*.

Definition: One unit is defineded as the amount of enzyme that consume 1μmol NADP+ to form D-Glucuronic acid and NADPH per min at 37°C.

SE-4003 Adenosine deaminase (RnADA)

Adenosine+H_2O ⟶ Inosine+NH_3

EC: 3.5.4.4

Package: 1 kU, 5 kU

Explanation: *E. coli* recombinant adenosine deaminase from *Rattus norvegicus*.

Definition: One unit is defined as the amount of enzyme that catalyzes the formation of 1 μmol inosine from adenosine per minute at 37°C.

SE-4004 UDP-Glc 4-epimerase (EcGalE)

UDP-Glc ⟶ UDP-Gal

EC: 5.1.3.2

Package: 50 U, 500 U

Explanation: *E.coli* recombinant UDP-Glc 4-epimerase from *E. coli*.

Definition: One unit is defined as the amount of enzyme that catalyzes the formation of 1 μmol of UDP-Gal from UDP-Glc per minute at 37°C.

Generic type

SE-4005 D-Mannose isomerase (PsMaSeAF)

D-fructose ⟶ D-mannose

EC: 5.3.1.7

Package: 1 U, 5 U

Explanation: *E. coli* recombinant D-mannose isomerase from *Pseudomonas syringae*.

Definition: One unit is defined as the amount of enzyme that catalyzes the formation of 1 μmol D-mannose from D-fructose per minute at 37°C.

SE-4006 Sphingolipid ceramide N-deacylase (SCDase)

GM1-sph + fatty acids C18 ⟶ GM1-Cer

EC: 3.5.1.69

Package: 100 mU, 1 U

Explanation: *E. coli* recombinant sphingolipid ceramide N-deacylase from *Shewanella alga*.

Definition: One unit is defined as the amount of enzyme that catalyzes the formation of 1 μmol GM1-Cer from GM1sph and fatty acids C18 per minute at 37°C.

SE-4007 Hyaluronan synthase (PmHAS)

UDP-GlcNAc + UDP-GlcA ⟶ (GlcNAcβ1, 4GlcA)n

EC: 2.4.1.212

Package: 1 U, 5 U, 10 U

Explanation: *E.coli* recombinant hyaluronan synthase from *Pasteurella multocida*.

Definition: One unit is defined as the amount of enzyme that catalyzes the formation of 1 μmol Hyaluronan from UDP-GlcNAc and UDP-GlcA per minute at 37°C.

SE-4008 Creatine kinase (OcCK)

ATP + creatine ⟶ ADP + phosphocreatine

EC: 2.7.3.2

Package: 50 U, 500 U

Explanation: *E. coli* recombinant creatine kinase from *Oryctolagus cuniculus*.

Definition: One unit is defined as the amount of enzyme that consume 1 μmol ATP to form phosphocreatine and ADP per min at 37°C.

Generic type

SE-4009 Acetate kinase (ACK)

ADP + Acetyl-phosphate ⟶ ATP + Acetate

EC: 2.7.2.1

Package: 100 U, 1 kU

Explanation: *E.coli* recombinant acetate kinase from *E.coli*.

Definition: One unit is defined as the amount of enzyme that catalyzes the formation of 1 μmol ATP from ADP and acetyl phosphate per minute at 37°C.

SE-4010 α1, 6-fucosidase (LpAlfC)

Fucα1,6GlcNAc-peptide ⟶ GlcNAc-peptide+Fuc

EC: 3.2.1.51

Package: 1 U, 5 U

Explanation: *E.coli* recombinant α 1, 6-fucosidase from *Lacticaseibacillus paracasei*.

Definition: One unit is defined as the amount of enzyme that catalyzes the formation of 1 nmol Fucα1,6GlcNAc-peptides from GlcNAc-peptides and GDP-Fuc per hour at 37°C.

SE-4012 Sialic acid aldolase (CgNal)

ManNAc + Pyuvate ⟶ Neu5Ac

EC: 4.1.3.3

Package: 10 U, 50 U

Explanation: *E. coli* recombinant sialic acid aldolase from *Corynebacterium glutamicum*.

Definition: One unit is defined as the amount of enzyme that catalyzes the formation of 1 μmol Neu5Ac from ManNAc and Pyuvate per minute at 37°C.

SE-4013 N-acetylhexosamine kinase (NahK)

GlcNAc / GalNAc + ATP ⟶ GlcNAc-1-P/ GalNAc-1-P + ADP

EC: 2.7.1.162

Package: 10 U, 50 U, 100 U

Explanation: *E. coli* recombinant N-acetylhexosamine kinase from *Bifidobacterium longum*.

Definition: One unit is defined as the amount of enzyme that catalyzes the formation of 1 μmol of GlcNAc-1-P from GlcNAc and ATP per minute at 37°C.

Generic type

SE-4014 Galactokinase (BiGalK)

Gal + ATP ⟶ Gal-1-P + ADP

EC: 2.7.1.6

Package: 100 U, 1000 U

Explanation: *E. coli* recombinant galactokinase from *Bifidobacterium infantis*.

Definition: One unit is defined as the amount of enzyme that consume 1μmol ATP to form Gal-1-P and ADP per min at 37°C.

SE-4015 Glucuronokinase (AtGlcAK)

ATP + GlcA ⟶ GlcA-1-P + ADP

EC: 2.1.7.43

Package: 1 U, 5 U, 25 U

Explanation: *E. coli* recombinant glucuronokinase from *Arabidopsis thaliana*.

Definition: One unit is defined as the amount of enzyme that consume 1 μmol ATP and GlcA to form GlcA-1-P and ADP per min at 37°C.

SE-4016 Galcuronokinase (AtGalAK)

ATP + GalA ⟶ GalA-1-P + ADP

EC: 2.7.1.44

Package: 1 U, 5 U, 25 U

Explanation: *E. coli* recombinant galcuronokinase from *Arabidopsis thaliana*.

Definition: One unit is defined as the amount of enzyme that consume 1 μmol ATP and GalA to form GalA-1-P and ADP per min at 37°C.

SE-4017 Hexokinase (HsHKI)

Glucose + ATP ⟶ Glucose-6-P + ADP

EC: 2.7.1.1

Package: 1 U, 5 U, 25 U

Explanation: *E.coli* recombinant hexokinase from *Homo sapiens*.

Definition: One unit is defined as the amount of enzyme that consume 1 μmol ATP and glucose to form Glucose-6-P and ADP per min at 37°C.

Generic type

SE-4018 GlcNAc kinase (EcNagK)

GlcNAc + ATP ⟶ GlcNAc-6-P + ADP

EC: 2.7.1.59

Package: 10 U, 50 U, 100 U

Explanation: *E.coli* recombinant GlcNAc kinase from *E. coli*.

Definition: One unit is defined as the amount of enzyme that consume 1 μmol ATP and GlcNAc to form GlcNAc-6-P and ADP per min at 37°C.

SE-4019 Galactose dehydrogenase (PfGalDH)

Galactose + NAD^+ ⟶ galacturonic acid + NADH

EC: 1.1.1.48

Package: 10 U, 50 U, 100 U

Explanation: *E.coli* recombinant galactose dehydrogenase from *Pseudomonas fluorescens*.

Definition: One unit is defined as the amount of enzyme that catalyzes the formation of 1 μmol NADH from Galactose and NAD per minute at 37°C.

SE-4020 N-acylhexosamine oxidase (RsHexNAcO)

N-acetyl-D-glucosamine + O_2 + H_2O ⟶ N-acetyl-D-glucosaminate + H_2O_2

EC: 1.1.3.29

Package: 10 U, 50 U 100 U

Explanation: *E. coli* recombinant N-acylhexosamine oxidase from *Ralstonia solanacearum*.

Definition: One unit is defined as the amount of enzyme that catalyzes the formation of 1 μmol H_2O_2 per minute at 37°C.

SE-4021 Phosphopentomutase (EcDeoB)

Ribose-5-P ⟶ Ribose-1-P

EC: 5.4.2.7

Package: 10 U, 50 U, 100 U

Explanation: *E. coli* recombinant phosphopentomutase from *E. coli*.

Definition: One unit is defined as the amount of enzyme that catalyzes the formation of 1 μmol Ribose-1-P per minute at 37°C.

Generic type

SE-4022 Fructose dehydrogenase (FDH)

D-fructose ⟶ keto-D-fructose

EC: 1.1.99.11

Package: 25 U, 250 U, 2500 U

Explanation: D-Fructose dehydrogenase extracted from *Gluconobacter sp*.

Definition: One unit is defined as the amount of enzyme that transfer 1 μmol D-fructose to 5-ketofructose per min at pH 4.5 at 37°C.

SE-4023 Sialic acid aldolase (EcNPL)

ManNAc + Pyruvate ⟶ Neu5Ac

EC: 4.1.3.3

Package: 10 U, 50 U

Explanation: *E. coli* recombinant sialic acid aldolase from *E. coli*.

Definition: One unit is defined as the amount of enzyme that catalyzes the formation of 1 μmol Neu5Ac from ManNAc and Pyruvate per minute at 37°C.

SE-4024 D-galactosyl-β1, 3-N-acetyl-D-hexosamine phosphorylase (BiGalHexNAcP)

GlcNAcOR + Gal-1-P ⟶ Galβ1, 3GlcNAcOR + PPi

EC: 2.4.1.211

Package: 5 U, 25 U, 200 U

Explanation: *E.coli* recombinant D-galactosyl-β1-3-N-acetyl-D-hexosamine phosphorylase from *Bifidobacterium infantis*.

Definition: One unit is defined as the amount of enzyme that catalyzes the formation of Galβ1,3 GlcNAc from Gal-1-P and 1 μmol GlcNAc per minute at 37°C.

SE-4025 Ketohexokinase (KHK-C)

fructose + ATP ⟶ fructose-1-P + ADP

EC: 2.7.1.3

Package: 50 U, 250 U, 1 kU

Explanation: *E. coli* recombinant ketohexokinase from *Homo sapiens*.

Definition: One unit is defined as the amount of enzyme that consume 1μmol ATP and fructose to form fructose-1-P per min at 37°C.

Generic type

SE-4026 L-arabinose isomerase (BlAI)

L -arabinose ⟶ L -ribulose

EC: 5.3.1.4

Package: 200 U，1000 U，5000 U

Explanation: *E.coli* recombinant L-arabinose isomerase from *Bifidobacterium longum*.

Definition: One unit is defined as the amount of enzyme that catalyzes the formation of 1 μmol L -ribulose from L -arabinose and Gal per min at 32°C.

SE-4027 Ribokinase (RbsK)

ATP + D-ribose ⟶ ADP + D-ribose 5-phosphate

EC: 2.7.1.15

Package: 100 U，1kU

Explanation: *E.coli* recombinant ribokinase from *Escherichia coli*.

Definition: Enzyme activity is defined as the amount of enzyme required to catalyze the production of 1 umol D-Ribose-5-phosphate from 1 μM ATP and D-ribose per minute at 37°C.

SE-4029 Nucleoside diphosphate kinase (EcNDK)

Ribonucleoside 5'-diphosphate + ATP ⟶ Ribonucleoside 5'-triphosphate + ADP

EC: 2.7.4.6

Package: 100 U， 1 kU

Explanation: *E.coli* recombinant nucleoside diphosphate kinase from *Escherichia coli*.

Definition: Enzyme activity is defined as the amount of enzyme required to catalyze the production of 2'-deoxyribonucleoside 5'-triphosphate from 1 μM ATP and 2'-deoxyribonucleoside 5'-diphosphate per minute at 37°C.

SE-4030 Xylose isomerase

D-xylose ⟶ D-xylulose

EC: 5.3.1.5

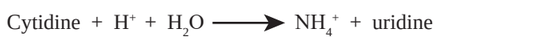
Package: 1 mg， 100 mg

Explanation: *E.coli* recombinant xylose isomerase from *Streptomyces rubiginosus*.

Definition: One unit is defined as the amount of enzyme that catalyzes the formation of 1 mg fructose from glucose at 60°C, pH7.5, with 10 mM $MgCl_2$.

Generic type

SE-4031 Cytidine deaminase (EcCdd)



EC: 3.5.4.5

Package: 100 U, 1 kU

Explanation: *E.coli* recombinant cytidine deaminase from *Escherichia coli*.

Definition: One unit is defined as the amount of enzyme that catalyzes the formation of 1 μmol of uridine from cytidine per min at 37°C.

SE-4032 Galactose oxidase (FgGalOx-M1)

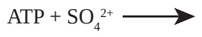
EC: 1.1.3.9

Package: 100 U, 1 kU

Explanation: *E.coli* recombinant galactose oxidase from *Fusarium graminearum*.

Definition: Enzyme activity is defined as the amount of enzyme required to catalyze 2 μmol ABST per minute at 37°C. (2μmol ABST is equivalent to 1 μmol O_2).

SE-4033 ATP-Sulfurylase (AnSAT)



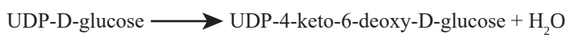
EC: 2.7.7.4

Package: 100 U, 1 kU

Explanation: *E.coli* recombinant ATP-Sulfurylase from *Anacystis nidulans*.

Definition: One unit is defined as the amount of enzyme that catalyzes the formation of 1 umol of APS from ATP per min at 37°C.

SE-4034 UDP D-glucose 4,6-dehydratase (ApmUGD)



EC: 1.1.1.22

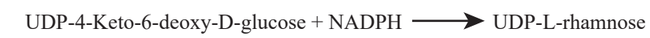
Package: 1 U, 10 U

Explanation: *E.coli* recombinant UDP-D-glucose 4,6-dehydratase from *Acanthamoeba polyphaga*.

Definition: One unit is defined as the amount of enzyme that catalyzes the formation of 1 μmol of UDP-4-Keto-6-deoxy-D-glucose from UDP-D-glucose at 37°C.

Generic type

SE-4035 UDP-4-keto-6-deoxy-D-glucose 3,5-epimerase/4-reductase (ApmUGER)



EC: 5.3.1.4

Package: 1 U, 10 U

Explanation: *E.coli* recombinant UDP-4-keto-6-deoxy-D-glucose 3,5-epimerase/4-reductase from *Acanthamoeba polyphaga*.

Definition: One unit is defined as the amount of enzyme that catalyzes the formation of 1 μmol of UDP-L-rhamnose from UDP-4-Keto-6-deoxy-D-glucose at 37°C.

SE-4036 D-xylose dehydrogenase (CvXylB)

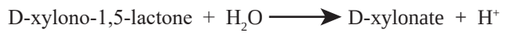
EC: 1.1.1.175

Package: 1 U, 10 U

Explanation: *E.coli* recombinant D-xylose dehydrogenase from *Caulobacter vibrioides*.

Definition: One unit is defined as the amount of enzyme that catalyzes the formation of 1 μmol of D-xylono-1,5-lactone from D-xylose at 37°C.

SE-4037 D-xylonolactone lactonase (CvXylC)



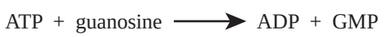
EC: 3.1.1.110

Package: 1 U, 10 U

Explanation: *E.coli* recombinant D-xylonolactone lactonase from *Caulobacter vibrioides*.

Definition: One unit is defined as the amount of enzyme that catalyzes the formation of 1 μmol of D-xylonate from D-xylono-1,5-lactone at 37°C.

SE-4038 Guanosine kinase (EaGSK)



EC: 2.7.1.73

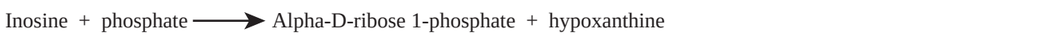
Package: 100 U, 1 kU

Explanation: *E.coli* recombinant guanosine kinase from *Exiguobacterium aurantiacum*.

Definition: One unit is defined as the amount of enzyme that catalyzes the formation of 1 μmol of GMP from ATP and guanosine at 37°C.

Generic type

SE-4039 Purine nucleoside phosphorylase (EaPNP)



EC: 2.4.2.1

Package: 100 U, 1 kU

Explanation: *E.coli* recombinant purine nucleoside phosphorylase from *Enterobacter aerogenes*.

Definition: One unit is defined as the amount of enzyme that catalyzes the formation of 1 μmol of hypoxanthine from inosine at 37°C.

SE-4040 Adenine deaminase (EcAdeD)

EC: 3.5.4.2

Package: 100 U, 1 kU

Explanation: *E.coli* recombinant adenine deaminase from *E.coli*.

Definition: One unit is defined as the amount of enzyme that catalyzes the formation of 1 μmol of adenine from hypoxanthine at 37°C.

SE-4041 Adenylyl-sulfate kinase (EcCysC)

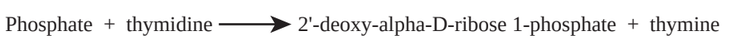
EC: 2.7.1.25

Package: 100 U, 1 kU

Explanation: *E.coli* recombinant adenylyl-sulfate kinase from *E.coli*.

Definition: One unit is defined as the amount of enzyme that catalyzes the formation of 1 μmol of 3'-phosphoadenylyl sulfate from adenosine 5'-phosphosulfate and ATP at 37°C.

SE-4042 Thymidine phosphorylase (EcDeoA)



EC: 2.4.2.4

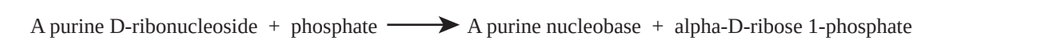
Package: 100 U, 1 kU

Explanation: *E.coli* recombinant thymidine phosphorylase from *E.coli*.

Definition: One unit is defined as the amount of enzyme that catalyzes the formation of 1 μmol of thymine from thymidine at 37°C.

Generic type

SE-4043 Purine nucleoside phosphorylase (EcDeoD)



EC: 2.4.2.1

Package: 100 U, 1 kU

Explanation: *E.coli* recombinant purine nucleoside phosphorylase from *E.coli*.

Definition: One unit is defined as the amount of enzyme that catalyzes the formation of 1 μmol of alpha-D-ribose 1-phosphate from a purine D-ribonucleoside at 37°C.

SE-4044 Polyphosphate kinase (RsPPK)

EC: 2.7.4.1

Package: 100 U, 1 kU

Explanation: *E.coli* recombinant polyphosphate kinase from *Rhodobacter sphaeroides*.

Definition: One unit is defined as the amount of enzyme that catalyzes the formation of 1 μmol of ADP from ATP and [Phosphate](n) at 37°C.

SE-4045 Polyphosphate kinase (EcPPK)

EC: 2.7.4.1

Package: 100 U, 1 kU

Explanation: *E.coli* recombinant polyphosphate kinase from *Escherichia coli*.

Definition: One unit is defined as the amount of enzyme that catalyzes the formation of 1 μmol of ADP from ATP and [phosphate](n) at 37°C.

SE-4046 Polyphosphate kinase (HbPPK2)

EC: 2.7.4.1

Package: 100 U, 1 kU

Explanation: *E.coli* recombinant polyphosphate kinase from *Hydrogenophilaceae bacterium*.

Definition: One unit is defined as the amount of enzyme that catalyzes the formation of 1 μmol of ADP from ATP and [phosphate](n) at 37°C.

Generic type

SE-4047 Polyphosphate kinase (AsPPK2)

[Phosphate](n) + ATP ⟶ [Phosphate](n+1) + ADP

EC: 2.7.4.1

Package: 100 U, 1 kU

Explanation: *E.coli* recombinant polyphosphate kinase from *Acidibacillus sulfuroxidans*.

Definition: One unit is defined as the amount of enzyme that catalyzes the formation of 1 μmol of ADP and [Phosphate](n+1) from ATP and [phosphate](n) at 37°C.

SE-4048 Glutamate decarboxylase (EcGadB)

L-glutamate ⟶ 4-aminobutanoate + CO_2

EC: 4.1.1.15

Package: 1 U, 10 U

Explanation: *E.coli* recombinant glutamate decarboxylase from *E.coli*.

Definition: One unit is defined as the amount of enzyme that catalyzes the formation of 1 μmol of 4-aminobutanoate from L-glutamate at 37°C.

SE-4049 Nicotinamide adenine dinucleotide (NADH) oxidase (SmNox)

NADH + O_2 ⟶ NAD^+ + H_2O

EC: 1.6.99.3

Package: 1 U, 10 U

Explanation: *E.coli* recombinant NADH oxidase from *Streptococcus mutans*.

Definition: One unit is defined as the amount of enzyme that catalyzes the formation of 1 μmol of NADH from NAD^+ at 37°C.

SE-4050 Guanylate kinase (ScGMK)

ATP + GMP ⟶ ADP + GDP

EC: 2.7.4.8

Package: 100 U, 1 kU

Explanation: *E.coli* recombinant guanylate kinase from *Saccharomyces cerevisiae*.

Definition: One unit is defined as the amount of enzyme that catalyzes the formation of 1 μmol of GDP from GMP and ATP at 37°C.

Generic type

SE-4051 Uridylate kinase (ScURA6)

ATP + UMP ⟶ ADP + UDP

EC: 2.7.4.14

Package: 100 U, 1 kU

Explanation: *E.coli* recombinant uridylate kinase from *Saccharomyces cerevisiae*.

Definition: One unit is defined as the amount of enzyme that catalyzes the formation of 1 μmol of UDP from UMP and ATP at 37°C.

SE-4055 Phosphoglucomutase/Phosphomannomutase (SsPgmG)

Glucose 6-phosphate ⟶ Glucose 1-phosphate

EC: 1.1.3.9

Package: 100 U, 1 kU

Explanation: *E.coli* recombinant phosphoglucomutase/ phosphomannomutase from *Sphingomonas sanxanigenens.*

Definition: One unit is defined as the amount of enzyme that catalyzes the formation of 1 μmol of glucose-6-phosphate from glucose 1-phosphate at 37°C.

SE-4058 Fructose-1, 6-diphosphatase (FBP)

beta-D-fructose 1,6-bisphosphate + H_2O ⟶ beta-D-fructose 6-phosphate + phosphate

EC: 3.1.3.11

Package: 100 U, 1 kU

Explanation: *E.coli* recombinant fructose-1, 6-diphosphatase from *Saccharomyces cerevisiae*.

Definition: One unit is defined as the amount of enzyme that catalyzes the formation of 1 μmol of beta-D-fructose 6-phosphate from beta-D-fructose 1,6-bisphosphate at 37°C.

SE-4056 Inorganic polyphosphate/ATP-glucomannokinase (AspPPGK)

D-glucose + polyphosphate(n) ⟶ D-glucose 6-phosphate + polyphosphate(n-1)

EC: 2.7.1.63

Package: 100 U, 1 kU

Explanation: *E.coli* recombinant inorganic polyphosphate/ ATP-glucomannokinase from *Arthrobacter* sp.

Definition: One unit is defined as the amount of enzyme that catalyzes the formation of 1 μmol of D-glucose 6-phosphate from D-glucose polyphosphate(n) at 37°C.

Generic type

SE-4057 UDP-GlcNAc 4-epimerase (BsGalE)

UDP-GlcNAc ⟶ UDP-GalNAc

EC: 5.1.3.7

Package: 10 U, 100 U

Explanation: *E.coli* recombinant UDP-GlcNAc 4-epimerase from *Bacillus subtilis*.

Definition: One unit is defined as the amount of enzyme that catalyzes the formation of 1 μmol of UDP-GalNAc from UDP-GlcNAc per minute at 37ºC.

SE-4059 L-arabinokinase (PbAraK)

ATP + L-arabinose ⟶ ADP + L-arabinose 1-phosphate

EC: 2.7.1.46

Package: 10 U, 100 U

Explanation: *E.coli* recombinant L-arabinokinase from *Paludisphaera borealis*.

Definition: One unit is defined as the amount of enzyme that catalyzes the formation of 1 μmol of L-arabinose 1-phosphate from L-arabinose and ATP per minute at 37ºC.

SE-4060 D-xylose kinase (ScGalK)

ATP + D-xylose ⟶ ADP + D-xylose 1-phosphate

EC: 2.7.1.6

Package: 1 U, 10 U

Explanation: *E.coli* recombinant D-xylose kinase from *Solitalea canadensis*.

Definition: One unit is defined as the amount of enzyme that catalyzes the formation of 1 μmol of D-xylose 1-phosphate from D-xylose and ATP per minute at 37ºC.

SE-4061 Formate dehydrogenase (PsFDH)

Formate + NAD^+ ⟶ CO_2 + NADH

EC: 1.17.1.11

Package: 1 U, 10 U

Explanation: *E.coli* recombinant formate dehydrogenase from *Pseudomonas* sp.

Definition: One unit is defined as the amount of enzyme that catalyzes the formation of 1 μmol of NADH from formate and NAD^+ per minute at 37ºC.

Generic type

SE-4062 Aldehyde dehydrogenase (ALDH)

Acetaldehyde + H_2O + $NADP^+$ ⟶ Acetate + $2H^+$ + NADPH

EC: 1.2.1.4

Package: 100 U, 1 kU

Explanation: Extracted from *Saccharomyces cerevisiae*.

Definition: One unit is defined as the amount of enzyme that catalyzes the formation of 1 μmol of acetate from acetaldehyde and $NADP^+$ per minute at 37°C.

SE-4063 Mannitol-1-dehydrogenase (AgMDH)

D-mannitol + NAD^+ ⟶ D-Mannose + H^+ + NADH

EC: 1.1.1.138

Package: 10 U, 100 U

Explanation: *E.coli* recombinant mannitol-1-dehydrogenase from *Apium graveolens*.

Definition: One unit is defined as the amount of enzyme that catalyzes the formation of 1 μmol of NADH from D-mannitol and NAD^+ per minute at 40°C.

SE-4066 Sialic acid aldolases (PmNanA)

ManNAc + Pyruvate ⟶ Neu5Ac

EC: 4.1.3.3

Package: 10 U, 50 U

Explanation: *E.coli* recombinant sialic acid aldolase from *Pasteurella multocida*.

Definition: One unit is defined as the amount of enzyme that catalyzes the formation of 1 μmol Neu5Ac from ManNAc and Pyruvate per minute at 37°C.

Glycotoolase expressed by eukaryotic cells -- Help the development of sugar bioscience

Glycosylation modification is a widespread type of protein post-translational modification, mainly occurring in the endoplasmic reticulum and Golgi apparatus. It plays an important role in cell growth, differentiation and metabolism, protein folding and degradation, viral and bacterial recognition, signaling, and fertilization.

Correct glycosylation of proteins affects the stability, immunogenicity, metabolic properties and biological activity of proteins. At present, the research on glycosylation and functional properties of glycoproteins has become a hot topic in the field of glycobiology.

Highassay has advanced eukaryotic expression technology platform, can provide a variety of human sources of glycosyltransferase, glycosidase to facilitate protein glycosylation modification, glycopeptide synthesis and various O-sugar and N-sugar synthesis.

We have eukaryotic expression systems such as yeast, baculovirus-insect cells, mammalian cells, etc., capable of synthesizing enzymes with high biological activity, and can use bioreactors to scale up production to meet the needs of scientific research and industry.

Galactose transferase

GE-1001 beta-1,4-Galactosyltransferase 1 (B4GalT1)

EC: 2.4.1.22

Package: 1 mg / Customize

Explanation: *Trichoplusia ni*, High Five(baculovirus)-derived human beta-1,4-Galactosyltransferase 1/B4GalT1 protein.

Definition: Measured by its ability to transfer galactose from UDP-galactose to N-Acetyl-alpha -D-glucosamine.

GE-1002 beta-1,4-Galactosyltransferase 1 (B4GalT1 (Y285L))

EC: 2.4.1-

Package: 1 mg / Customize

Explanation: Human embryonic kidney cell, HEK293-derived human Beta-1,4-Galactosyltransferase (Y285L)/B4GALT1 (Y285L) protein.

Definition: Measured by its ability to transfer N-Acetyl-D-galactosamine from UDP-GalNAc to N-Acetyl-D-glucosamine.

Galactose transferase

GE-1003 Beta-1,3-galactosyltransferase 5 (B3GalT5)

EC: 2.4.1-

Package: 1 mg / Customize

Explanation: Chinese Hamster Ovary cell line, CHO-derived human B3GalT5 protein.

Definition: Measured by its ability to transfer galactose from UDP-galactose to N-Acetyl-alpha -D-glucosamine.

GE-1004 beta-1,4-Galactosyltransferase 2 (B4GalT2)

EC: 2.4.1.22

Package: 1 mg / Customize

Explanation: *Trichoplusia ni*, High Five(baculovirus)-derived human beta-1,4-Galactosyltransferase 2/B4GalT2 protein.

Definition: Measured by its ability to transfer galactose from UDP-galactose to glucose.

GE-1005 beta-1,4-Galactosyltransferase 7 (B4GalT7)

EC: 2.4.1.133

Package: 1 mg / Customize

Explanation: Human embryonic kidney cell, HEK293-derived human Beta-1,4-Galactosyltransferase 7/B4GalT7 protein.

Definition: Measured by its ability to transfer galactose from UDP-Galactose to D-Xylose.

GE-1006 Bovine beta-1,4-Galactosyltransferase 1 (Y289L) /Bovine B4GALT1 (Y289L)

EC: 2.4.1-

Package: 1 mg / Customize

Explanation: Human embryonic kidney cell, HEK293-derived Bovine beta-1,4-Galactosyltransferase 1 (Y289L)/B4GALT1 (Y289L) protein.

Definition: Measured by its ability to transfer N-Acetyl-D-galactosamine from UDP-GalNAc to N-Acetyl-D-glucosamine.

Galactose transferase

GE-1007 Bovine beta-1,4-Galactosyltransferase 1 (Bovin B4GALT1)

EC: 2.4.1.38

Package: 1 mg / Customize

Explain: *Trichoplusia ni*, High Five(baculovirus)-derived Bovine beta-1,4-Galactosyltransferase 1/B4GALT1 protein.

Definition: Measured by its ability to transfer galactose from UDP-galactose to N-Acetyl-alpha-D-glucosamine.

GE-1008 Mouse beta-1,4-Galactosyltransferase 1 (Y286L) / (Mouse B4GalT1 (Y286L))

EC: 2.4.1-

Package: 1 mg / Customize

Explanation: *Trichoplusia ni*, High Five(baculovirus)-derived Mouse beta-1,4-Galactosyltransferase 1/B4GALT1 protein.

Definition: Measured by its ability to transfer N-Acetyl-D-galactosamine from UDP-GalNAc to N-Acetyl-D-glucosamine.

GE-1009 *Caloenas nicobarica* beta-1,4-galactosyltransferase / (CnB4GalT2)

GlcNAc + UDP-GalNAc ⟶ GalNAc(β1–4)GlcNAc + UDP

EC: 2.4.1-

Package: 1 mg / Customize

Explanation: *Trichoplusia ni*, High Five(baculovirus)-derived Caloenas nicobarica beta-1,4-Galactosyltransferase /CnB4GalT2 protein.

Definition: Measured by its ability to transfer N-Acetyl-D-galactosamine from UDP-GalNAc to N-Acetyl-D-glucosamine.

GalNAc transferase

GE-1101 UDP-GalNAc:beta-1,3-N-acetylgalactosaminyltransferase 2 (B3GALNT2)

EC: 2.4.1.313

Package: 1 mg / Customize

Explanation: Chinese Hamster Ovary cell line, CHO-derived human B3GALNT2 protein.

Definition: Measured by its ability to transfer GalNAc from UDP-GalNAc to benzyl-GlcNAc.

GE-1102 Polypeptide N-acetylgalactosaminyltransferase 1 (GALNT1)

EC: 2.4.1.41

Package: 1 mg / Customize

Explanation: *Trichoplusia ni*, High Five(baculovirus)-derived human Polypeptide GalNac Transferase 1/GALNT1 protein.

Definition: Measured by its ability to transfer GalNAc from UDP-GalNAc to peptide EA2 .

GE-1103 Polypeptide N-acetylgalactosaminyltransferase 2 (GALNT2)

EC: 2.4.1.41

Package: 1 mg / Customize

Explanation: *Trichoplusia ni*, High Five(baculovirus)-derived human GALNT2 protein.

Definition: Measured by its ability to transfer GalNAc from UDP-GalNAc to peptide EA2.

GE-1104 Polypeptide N-acetylgalactosaminyltransferase 3 (GALNT3)

EC: 2.4.1.41

Package: 1 mg / Customize

Explanation: *Trichoplusia ni*, High Five(baculovirus)-derived human Polypeptide GalNac Transferase 3/GALNT3 protein.

Definition: Measured by its ability to transfer GalNAc from UDP-GalNAc to peptide EA2.

GalNAc transferase

GE-1105 Polypeptide N-acetylgalactosaminyltransferase 4 (GALNT4)

EC: 2.4.1.41

Package: 1 mg / Customize

Explanation: *Trichoplusia ni*, High Five(baculovirus)-derived human Polypeptide GalNac Transferase 4/GALNT4 protein.

Definition: Measured by its ability to transfer GalNAc from UDP-GalNAc to peptide EA2.

GE-1106 Polypeptide N-acetylgalactosaminyltransferase 7 (GALNT7)

EC: 2.4.1.41

Package: 1 mg / Customize

Explanation: *Trichoplusia ni*, High Five(baculovirus)-derived human Polypeptide GalNac Transferase 7/GALNT7 protein.

Definition: Measured by its ability to transfer GalNAc from UDP-GalNAc to peptide MUC5AC-3/13 .

GE-1107 Polypeptide N-acetylgalactosaminyltransferase 10 (GALNT10)

EC: 2.4.1.41

Package: 1 mg / Customize

Explanation: *Trichoplusia ni*, High Five(baculovirus)-derived human Polypeptide GalNac Transferase 10/GALNT10 protein.

Definition: Measured by its ability to transfer GalNAc from UDP-GalNAc to peptide MUC5AC-3/13 .

GE-1108 Polypeptide N-acetylgalactosaminyltransferase 11 (GALNT11)

EC: 2.4.1.41

Package: 1 mg / Customize

Explanation: Chinese Hamster Ovary cell line, CHO-derived human Polypeptide GalNac Transferase 11/GALNT11 protein.

Definition: Measured by its ability to transfer GalNAc from UDP-GalNAc to peptide EA2.

GalNAc transferase

GE-1109 Polypeptide N-acetylgalactosaminyltransferase 12 (GALNT12)

EC: 2.4.1.41

Package: 1 mg / Customize

Explain: Chinese Hamster Ovary cell line, CHO-derived human Polypeptide GalNac Transferase 12/GALNT12 protein.

Definition: Measured by its ability to transfer GalNAc from UDP-GalNAc to peptide EA2.

GE-1110 Polypeptide N-acetylgalactosaminyltransferase 13 (GALNT13)

EC: 2.4.1.41

Package: 1 mg / Customize

Explanation: Human embryonic kidney cell, HEK293-derived human Polypeptide GalNac Transferase 13/GALNT13 protein.

Definition: Measured by its ability to transfer GalNAc from UDP-GalNAc to peptide EA2.

GE-1111 Polypeptide N-acetylgalactosaminyltransferase 14 (GALNT14)

EC: 2.4.1.41

Package: 1 mg / Customize

Explanation: Chinese Hamster Ovary cell line, CHO-derived human Polypeptide GalNac Transferase 14/GALNT14 protein.

Definition: Measured by its ability to transfer GalNAc from UDP-GalNAc to peptide EA2.

GE-1112 Polypeptide N-acetylgalactosaminyltransferase 16 (GALNTL1)

EC: 2.4.1.41

Package: 1 mg / Customize

Explanation: *Trichoplusia ni*, High Five(baculovirus)-derived human GALNTL1 protein.

Definition: Measured by its ability to transfer GalNAc from UDP-GalNAc to peptide EA2.

GalNAc transferase

GE-1113 Beta-1,4-N-acetylgalactosaminyltransferase (TnGalNAcT)

EC: 2.4.1-

Package: 1 mg / Customize

Explain: Human embryonic kidney cell, HEK293-derived TnGalNAcT protein.

Definition: Measured by its ability to transfer N-Acetyl-D-galactosamine from UDP-GalNAc to N-Acetyl-D-glucosamine.

GE-1114 Beta-1,4-N-acetylgalactosaminyltransferase (CeB4GALT1 (I267Y))

EC: 2.4.1-

Package: 1 mg / Customize

Explain: *Trichoplusia ni*, High Five(baculovirus)-derived CeB4GALT1 （I267Y) protein.

Definition: Measured by its ability to transfer N-Acetyl-D-galactosamine from UDP-GalNAc to N-Acetyl-D-glucosamine.

GlcNAc transferase

GE-1201 Alpha-1,4-N-Acetylglucosaminyltransferase 4 (A4GNT)

EC: 2.4.1-

Package: 1 mg / Customize

Explanation: Chinese Hamster Ovary cell line, CHO-derived human Alpha-1,4-N-Acetylglucosaminyltransferase 4/A4GNT protein.

Definition: Measured by its ability to transfer GlcNAc from UDP-GlcNAc to galactose.

GE-1202 Beta-1,3-N-Acetylglucosaminyltransferase 2 (B3GNT2)

EC: 2.4.1.149

Package: 1 mg / Customize

Explanation: *Trichoplusia ni*, High Five(baculovirus)-derived human Beta-1,3-N-Acetylglucosaminyltransferase 2/B3GNT2 protein.

Definition: Measured by its ability to transfer GlcNAc from UDP-GlcNAc to N-Acetyl-D-Lactosamine.

GE-1203 Beta-1,3-N-Acetylglucosaminyltransferase 4 (B3GNT4)

EC: 2.4.1.41

Package: 1 mg / Customize

Explanation: Chinese Hamster Ovary cell line, CHO-derived human Polypeptide GalNac Transferase 11/GALNT11 protein.

Definition: Measured by its ability to transfer N-acetylglucosamine from UDP-GlcNAc to beta -lactose.

GE-1204 Beta-1,3-N-Acetylglucosaminyltransferase 6 (B3GNT6)

EC: 2.4.1.147

Package: 1 mg / Customize

Explanation: *Trichoplusia ni*, High Five(baculovirus)-derived human Beta-1,3-N-Acetylglucosaminyltransferase 6/B3GNT6 protein.

Definition: Measured by its ability to transfer GlcNAc from UDP-GlcNAc to 4-nitrophenyl-alpha -D-galactosaminide.

GalNAc transferase

GE-1206 Glucosaminyl (N-acetyl) Transferase 4 Core 2 (C2GNT3/GCNT4)

EC: 2.4.1.102

Package: 1 mg / Customize

Explanation: Chinese Hamster Ovary cell line, CHO-derived human C2GNT3/GCNT4 protein.

Definition: Measured by its ability to transfer GlcNAc from UDP-GlcNAc to B1-3 galactosyl-N-acetyl galactosamine.

GE-1207 Glucosaminyl (N-acetyl) Transferase 1 (GCNT1)

EC: 2.4.1.102

Package: 1 mg / Customize

Explanation: *Trichoplusia ni*, High Five(baculovirus)-derived human Glucosaminyl (N-acetyl) Transferase 1/GCNT1 protein.

Definition: Measured by its ability to transfer GlcNAc from UDP-GlcNAc to B1-3 galactosyl-N-acetyl galactosamine.

GE-1208 Glucosaminyl (N-acetyl) Transferase 2 (GCNT2)

EC: 2.4.1.150

Package: 1 mg / Customize

Explanation: *Trichoplusia ni*, High Five(baculovirus)-derived human Glucosaminyl (N-acetyl) Transferase 2 protein.

Definition: Measured by its ability to transfer GlcNAc from UDP-GlcNAc to Cy5-labeled Extended G2.

GE-1209 N-Acetylglucosaminyltransferase1 (MGAT1)

EC: 2.4.1.101

Package: 1 mg / Customize

Explanation: *Trichoplusia ni*, High Five(baculovirus)-derived human N-Acetylglucosaminyltransferase I/MGAT1 protein.

Definition: Measured by its ability to transfer N-Acetyl-D-Glucosamine from UDP-GlcNAc to alpha 1-3, alpha 1-6-Mannotriose.

GlcNAc transferase

GE-1210 N-Acetylglucosaminyltransferase 2 (MGAT2)

EC: 2.4.1.143

Package: 1 mg / Customize

Explanation: *Trichoplusia ni*, High Five(baculovirus)-derived human N-Acetylglucosaminyltransferase 2/MGAT2 protein.

Definition: Measured by its ability to modify the glycan Cy5-labeled M1N1f and thereby creating a band shift.

GE-1211 N-Acetylglucosaminyltransferase III (MGAT3)

EC: 2.4.1.144

Package: 1 mg / Customize

Explanation: Human embryonic kidney cell, HEK293-derived N-Acetylglucosaminyltransferase III/MGAT3.

Definition: Measured by its ability to transfer N-Acetyl-alpha -D-glucosamine from UDP-N-Acetyl-alpha -D-glucosamine to a biantennary N-linked core pentasaccharide in a CD39L3 coupled assay.

GE-1212 N-Acetylglucosaminyltransferase V (MGAT5)

EC: 2.4.1.155

Package: 1 mg / Customize

Explanation: Human embryonic kidney cell, HEK293-derived N-Acetylglucosaminyltransferase V/MGAT5.

Definition: Measured by its ability to transfer N-Acetyl-alpha -D-glucosamine from UDP-N-Acetyl-alpha -D-glucosamine to a biantennary N-linked core pentasaccharide in a CD39L3 coupled assay.

GE-1213 N-Acetylglucosaminyltransferase IV (MGAT4A)

EC: 2.4.1.145

Package: 1 mg / Customize

Explanation: Human embryonic kidney cell, HEK293-derived N-Acetylglucosaminyltransferase IV/MGAT4A.

Definition: Measured by its ability to transfer GlcNAc from UDP-GlcNAc to a biantennary N-linked core pentasaccharide.

GlcNAc transferase

GE-1213 N-Acetylglucosaminyltransferase IV (MGAT4A)

EC: 2.4.1.145

Package: 1 mg / Customize

Explanation: Human embryonic kidney cell, HEK293-derived N-Acetylglucosaminyltransferase IV/MGAT4A.

Definition: Measured by its ability to transfer GlcNAc from UDP-GlcNAc to a biantennary N-linked core pentasaccharide.

Sialyltransferases

GE-1301 ST3 beta-Gal alpha-2,3-Sialyltransferase 1 (ST3GAL1)

EC: 2.4.3.4

Package: 1 mg / Customize

Explanation: *Trichoplusia ni*, High Five(baculovirus)-derived human ST3 beta-Gal alpha-2,3-Sialyltransferase 1/ST3GAL1 protein.

Definition: Measured by its ability to transfer Neu5Ac from CMP-Neu5Ac to bovine B1-3 galactosyl-N-acetyl galactosamine.

GE-1302 ST3 beta-Gal alpha-2,3-Sialyltransferase 2 (ST3GAL2)

EC: 2.4.3.4

Package: 1 mg / Customize

Explanation: Chinese Hamster Ovary cell line, CHO-derived human ST3 beta-Gal alpha-2,3-Sialyltransferase 2/ST3GAL2 protein.

Definition: Measured by its ability to transfer Neu5Ac from CMP-Neu5Ac to bovine B1-3 galactosyl-N-acetyl galactosamine.

GE-1303 ST3 beta-Gal alpha-2,3-Sialyltransferase 3 (ST3GAL3)

EC: 2.4.3.6

Package: 1 mg / Customize

Explanation: *Trichoplusia ni*, High Five(baculovirus)-derived human ST3GAL3 protein.

Definition: Measured by its ability to transfer Neu5Ac from CMP-Neu5Ac to N-Acetyllactosamine.

Sialyltransferases

GE-1304 ST3 beta-Gal alpha-2,3-Sialyltransferase 4 (ST3GAL4)

EC: 2.4.3.2

Package: 1 mg / Customize

Explanation: *Trichoplusia ni*, High Five(baculovirus)-derived human ST3GAL4 protein.

Definition: Measured by its ability to transfer Neu5Ac from CMP-Neu5Ac to alpha -lactose.

GE-1305 ST3 beta-Gal alpha-2,3-Sialyltransferase 5 (ST3GAL5/GM3 Synthase (Mouse))

EC: 2.4.3.9

Package: 1 mg / Customize

Explanation: Chinese Hamster Ovary cell line, CHO-derived mouse ST3GAL5/GM3 Synthase protein.

Definition: Measured by its ability to transfer Neu5Ac from CMP-Neu5Ac to alpha -lactose.

GE-1306 ST3 beta-Gal alpha-2,3-Sialyltransferase 6 (ST3GAL6)

EC: 2.4.99.

Package: 1 mg / Customize

Explanation: Chinese Hamster Ovary cell line, CHO-derived human ST3GAL6 protein.

Definition: Measured by its ability to transfer Neu5Ac from CMP-Neu5Ac to N-Acetyllactosamine.

GE-1307 ST6 Gal Sialyltransferase 1 (ST6GAL1)

EC: 2.4.3.1

Package: 1 mg / Customize

Explanation: *Trichoplusia ni*, High Five(baculovirus)-derived human ST6 Gal Sialyltransferase 1/ST6GAL1 protein.

Definition: Measured by its ability to transfer Neu5Ac from CMP-Neu5Ac to N-Acetyllactosamine.

GE-1308 ST6 Gal Sialyltransferase 2 (ST6GAL2)

EC: 2.4.3.1

Package: 1 mg / Customize

Explanation: Chinese Hamster Ovary cell line, CHO-derived human ST6 Gal Sialyltransferase 2/ST6GAL2 protein.

Definition: Measured by its ability to transfer Neu5Ac from CMP-Neu5Ac to fetuin of fetal calf serum.

GE-1309 ST6 Sialyltransferase 1 (ST6GALNAC1)

EC: 2.4.3.3

Package: 1 mg / Customize

Explanation: Human embryonic kidney cell, HEK293-derived human ST6 Sialyltransferase 1/ST6GALNAC1 protein.

Definition: Measured by its ability to transfer Neu5Ac from CMP-Neu5Ac to fetuin of fetal calf serum.

GE-1310 ST6 Sialyltransferase 2 (ST6GALNAC2)

EC: 2.4.3.3

Package: 1 mg / Customize

Explanation: *Trichoplusia ni*, High Five(baculovirus)-derived mouse ST6 Sialyltransferase 2/ST6GALNAC2 protein.

Definition: Measured by its ability to transfer Neu5Ac from CMP-Neu5Ac to fetuin of fetal calf serum.

GE-1311 ST6 Sialyltransferase 4 (ST6GALNAC4)

EC: 2.4.3.7

Package: 1 mg / Customize

Explanation: *Trichoplusia ni*, High Five(baculovirus)-derived human ST6GALNAC4 protein.

Definition: Measured by its ability to transfer Neu5Ac from CMP-Neu5Ac to fetuin of fetal calf serum.

GE-1312 ST6 Sialyltransferase 5 (ST6GALNAC5)

EC: 2.4.99.-

Package: 1 mg / Customize

Explanation: *Trichoplusia ni*, High Five(baculovirus)-derived human ST6GALNAC4 protein.

Definition: Measured by its ability to transfer Neu5Ac from CMP-Neu5Ac to fetuin of fetal calf serum.

GE-1313 ST6 Sialyltransferase 6 (ST6GALNAC6)

EC: 2.4.99.-

Package: 1 mg / Customize

Explanation: *Trichoplusia ni*, High Five(baculovirus)-derived human ST6GALNAC4 protein.

Definition: Measured by its ability to transfer Neu5Ac from CMP-Neu5Ac to fetuin of fetal calf serum.

GE-1314 ST8 alpha-2,8-Sialyltransferase 8A (ST8SIA1)

EC: 2.4.3.8

Package: 1 mg / Customize

Explanation: Chinese Hamster Ovary cell line, CHO-derived human ST8 alpha-2,8-Sialyltransferase 8A/ST8SIA1 protein.

Definition: Measured by its ability to transfer Neu5Ac from CMP-Neu5Ac to fetuin of fetal calf serum.

GE-1315 ST8 alpha-2,8-Sialyltransferase 8B (ST8SIA2)

EC: 2.4.3.-

Package: 1 mg / Customize

Explanation: *Trichoplusia ni*, High Five(baculovirus)-derived human ST8 alpha-2,8-Sialyltransferase 8B/ST8SIA2 protein.

Definition: Measured by its ability to transfer sialic acid from CMP-NeuAc to Recombinant Human NCAM-1/CD56 120 isoform.

Sialyltransferases

GE-1316 ST8 alpha-2,8-Sialyltransferase 4 (ST8SIA4)

EC: 2.4.99.-

Package: 1 mg / Customize

Explanation: Chinese Hamster Ovary cell line, CHO-derived human ST8 alpha-2,8-Sialyltransferase 4/ST8SIA4 protein.

Definition: Measured by its ability to transfer sialic acid from CMP-NeuAc to Recombinant Human NCAM-1/CD56 120 isoform.

GE-1317 ST8 alpha-2,8-Sialyltransferase 6 (ST8SIA6)

EC: 2.4.99.-

Package: 1 mg / Customize

Explanation: Chinese Hamster Ovary cell line, CHO-derived human ST8 alpha-2,8-Sialyltransferase 6/ST8SIA6 protein.

Definition: Measured by its ability to transfer Neu5Ac from CMP-Neu5Ac to fetuin of fetal calf serum.

Fucosyltransferases

GE-1401 Fucosyltransferase 2 (FUT2)

EC: 2.4.1.69

Package: 1 mg / Customize

Explanation: Human embryonic kidney cell, HEK293-derived human Fucosyltransferase 2/FUT2 protein.

Definition: Measured by its ability to transfer fucose from GDP-fucose to lactose.

GE-1402 Fucosyltransferase 3 (FUT3)

EC: 2.4.1.65

Package: 1 mg / Customize

Explanation: *Trichoplusia ni*, High Five(baculovirus)-derived human Fucosyltransferase 3/FUT3 protein. Arg35-Thr361, with an N-terminal 6-His tag.

Definition: Measured by its ability to transfer fucose from GDP-fucose to N-Acetyllactosamine.

GE-1403 Fucosyltransferase 5 (FUT5)

EC: 2.4.1.65

Package: 1 mg / Customize

Explanation: *Trichoplusia ni*, High Five(baculovirus)-derived human Fucosyltransferase 5/FUT5 protein.

Definition: Measured by its ability to transfer fucose from GDP-fucose to N-Acetyllactosamine.

GE-1404 Fucosyltransferase 6 (FUT6)

EC: 2.4.1.152

Package: 1 mg / Customize

Explanation: *Trichoplusia ni*, High Five(baculovirus)-derived human Fucosyltransferase 6/FUT6 protein.

Definition: Measured by its ability to transfer fucose from GDP-fucose to fetal bovine fetuin.

Fucosyltransferases

GE-1405 Fucosyltransferase 7 (FUT7)

EC: 2.4.1.-

Package: 1 mg / Customize

Explanation: Chinese Hamster Ovary cell line, CHO-derived human Fucosyltransferase 7/FUT7 protein.

Definition: Measured by its ability to transfer fucose from GDP-fucose to fetal bovine fetuin.

GE-1406 SFucosyltransferase 8 (FUT8)

EC: 2.4.1.68

Package: 1 mg / Customize

Explanation: Chinese Hamster Ovary cell line, CHO-derived human Fucosyltransferase 8/FUT8 protein.

Definition: Measured by its ability to transfer fucose from GDP-fucose to N-Acetyllactosamine.

GE-1407 Fucosyltransferase 9 (FUT9)

EC: 2.4.1.152

Package: 1 mg / Customize

Explanation: Chinese Hamster Ovary cell line, CHO-derived human Fucosyltransferase 9/FUT9 protein.

Definition: Measured by its ability to transfer fucose from GDP-fucose to N-Acetyllactosamine.

GE-1408 Fucosyltransferase 11 (FUT11)

EC: 2.4.1.-

Package: 1 mg / Customize

Explanation: Chinese Hamster Ovary cell line, CHO-derived human Fucosyltransferase 11/FUT11 protein.

Definition: Measured by its ability to transfer fucose from GDP-fucose to N-Acetyllactosamine.

Fucosyltransferases

GE-1409 Protein O-Fucosyltransferase 1 (POFUT1)

E.C.: 2.4.1.221

Package: 20 ug, 100 ug, 1 mg

Explanation: Trichoplusia ni, High Five(baculovirus)-derived human Protein O-Fucosyltransferase 1/POFUT1 protein.

Definition: Measured by its ability to hydrolyze the donor substrate GDP-fucose.

Carbohydrate Sulfotransferases

GE-1501 Carbohydrate Sulfotransferase 1 (CHST1)

E.C.: 2.8.2.21

Package: 20 ug, 100 ug, 1 mg

Explanation: Human embryonic kidney cell, HEK293-derived human Carbohydrate Sulfotransferase 1/CHST1 protein.

Definition: Measured by its ability to transfer sulfate from PAPS to alpha -Lactose under the described conditions.

GE-1502 Carbohydrate Sulfotransferase 2 (CHST2)

EC: 2.8.2.-

Package: 1 mg / Customize

Explanation: Chinese Hamster Ovary cell line, CHO-derived human Carbohydrate Sulfotransferase 2/CHST2 protein.

Definition: Measured by its ability to transfer fucose from GDP-fucose to fetal bovine fetuin.

GE-1503 Carbohydrate Sulfotransferase 3 (CHST3)

EC: 2.8.2.17

Package: 1 mg / Customize

Explanation: Chinese Hamster Ovary cell line, CHO-derived human Carbohydrate Sulfotransferase 3/CHST3 protein.

Definition: Measured by its ability to transfer sulfate from PAPS to chondroitin sulfate under the described conditions.

GE-1504 Carbohydrate Sulfotransferase 4 (CHST4)

EC: 2.8.2.-

Package: 1 mg / Customize

Explanation: Chinese Hamster Ovary cell line, CHO-derived human Carbohydrate Sulfotransferase 4/CHST4 protein.

Definition: Measured by its ability to transfer sulfate from PAPS to N-acetyl-D-glucosamine under the described conditions.

GE-1505 Carbohydrate Sulfotransferase 5 (CHST5)

EC: 2.8.2.-

Package: 1 mg / Customize

Explanation: Chinese Hamster Ovary cell line, CHO-derived mouse Carbohydrate Sulfotransferase 5/CHST5 protein.

Definition: Measured by its ability to transfer sulfate from PAPS to N-acetyl-D-glucosamine under the described conditions.

GE-1506 Carbohydrate Sulfotransferase 6 (CHST6)

EC: 2.8.2.21

Package: 1 mg / Customize

Explanation: Chinese Hamster Ovary cell line, CHO-derived human Carbohydrate Sulfotransferase 6/CHST6 protein.

Definition: Measured by its ability to transfer sulfate from PAPS to N-acetyl-D-glucosamine under the described conditions.

GE-1507 Carbohydrate Sulfotransferase 7 (CHST7)

EC: 2.8.2.17

Package: 1 mg / Customize

Explanation: Chinese Hamster Ovary cell line, CHO-derived mouse Carbohydrate Sulfotransferase 7/CHST7 protein.

Definition: Measured by its ability to transfer sulfate from PAPS to N-acetyl-D-glucosamine under the described conditions.

GE-1508 Carbohydrate Sulfotransferase 10 (CHST10)

E.C.: 2.8.2.-

Package: 20 ug, 100 ug, 1 mg

Explanation: Chinese Hamster Ovary cell line, CHO-derived human Carbohydrate Sulfotransferase 10/CHST10 protein.

Definition: Measured by its ability to transfer sulfate from PAPS to phenolpthalein glucuronic acid under the described conditions.

GE-1509 Carbohydrate Sulfotransferase 15 (CHST15)

EC: 2.8.2.33

Package: 1 mg / Customize

Explanation: Trichoplusia ni, High Five(baculovirus)-derived human Carbohydrate Sulfotransferase 15/CHST15 protein.

Definition: Measured by its ability to transfer sulfate from PAPS to chondroitin sulfate under the described conditions.

GE-1510 Galactose-3-O-sulfotransferase 2 (GAL3ST2)

EC: 2.8.2.-

Package: 1 mg / Customize

Explanation: Chinese Hamster Ovary cell line, CHO-derived human Galactose-3-O-sulfotransferase 2/GAL3ST2 protein.

Definition: Measured by its ability to transfer sulfate from PAPS to heparan sulfate under the described conditions.

GE-1511 Heparan Sulfate 2-O-Sulfotransferase 1 (HS2ST1)

EC: 2.8.2.17

Package: 1 mg / Customize

Explanation: Chinese Hamster Ovary cell line, CHO-derived human Heparan Sulfate 2-O-Sulfotransferase 1/HS2ST1 protein.

Definition: Measured by its ability to transfer sulfate from PAPS to chondroitin sulfate under the described conditions.

GE-1512 Heparan Sulfate 3-O-Sulfotransferase 1 (HS3ST1)

EC: 2.8.2.23

Package: 1 mg / Customize

Explanation: Chinese Hamster Ovary cell line, CHO-derived human Heparan Sulfate 3-O-Sulfotransferase 1/HS3ST1 protein.

Definition: Measured by its ability to transfer sulfate from PAPS to heparan sulfate under the described conditions.

GE-1513 Heparan Sulfate 3-O-Sulfotransferase 4 (HS3ST4)

EC: 2.8.2.23

Package: 1 mg / Customize

Explanation: Chinese Hamster Ovary cell line, CHO-derived human Heparan Sulfate 3-O-Sulfotransferase 4/HS3ST4 protein.

Definition: Measured by its ability to transfer sulfate from PAPS to heparan sulfate under the described conditions.

GE-1514 Heparan Sulfate 6-O-Sulfotransferase 1 (HS6ST1)

EC: 2.8.2.-

Package: 1 mg / Customize

Explanation: Chinese Hamster Ovary cell line, CHO-derived human Heparan Sulfate 6-O-Sulfotransferase 1/HS6ST1 protein.

Definition: Measured by its ability to transfer sulfate from PAPS to heparan sulfate under the described conditions.

GE-1515 Heparan Sulfate 6-O-Sulfotransferase 3 (HS6ST3)

EC: 2.8.2.-

Package: 1 mg / Customize

Explanation: Chinese Hamster Ovary cell line, CHO-derived human Heparan Sulfate 6-O-Sulfotransferase 3/HS6ST3 protein.

Definition: Measured by its ability to transfer sulfate from PAPS to heparan sulfate under the described conditions.

GE-1516 Heparan Sulfate Glucosamine 3-O-Sulfotransferase 3 (HS3ST3B1)

EC: 2.8.2.30

Package: 1 mg / Customize

Explanation: Chinese Hamster Ovary cell line, CHO-derived human Heparan Sulfate Glucosamine 3-O-Sulfotransferase 3 protein.

Definition: Measured by its ability to transfer sulfate from PAPS to heparan sulfate under the described conditions.

GE-1517 N-Deacetylase/N-Sulfotransferase 1 (NDST1)

EC: 2.8.2.8

Package: 1 mg / Customize

Explanation: Chinese Hamster Ovary cell line, CHO-derived human N-Deacetylase/N-Sulfotransferase 1/NDST1 protein.

Definition: Measured by its ability to transfer sulfate from PAPS to heparan sulfate under the described conditions.

GE-1518 N-Deacetylase/N-Sulfotransferase 2 (NDST2)

EC: 2.8.2.8

Package: 1 mg / Customize

Explanation: Chinese Hamster Ovary cell line, CHO-derived human Galactose-3-O-sulfotransferase 2/GAL3ST2 protein.

Definition: Measured by its ability to transfer sulfate from PAPS to heparan sulfate under the described conditions.

GE-1519 Galactose-3-O-sulfotransferase 1 (GAL3ST1)

EC: 2.8.2.11

Package: 1 mg / Customize

Explanation: Trichoplusia ni, High Five(baculovirus)-derived Galactose-3-O-sulfotransferase 1/GAL3ST1 protein.

Definition: Measured by its ability to transfer sulfate from PAPS to alpha -Lactose under the described conditions.

Glucuronosyltransferases

GE-1601 Protein O-Glucosyltransferase 1 (POGLUT1)

EC: 2.4.2.63

Package: 1 mg / Customize

Explanation: Chinese Hamster Ovary cell line, CHO-derived human Protein O-Glucosyltransferase 1/POGLUT1 protein.

Definition: Measured by its ability to hydrolyze UDP-Glucose.

Glucuronosyltransferases

GE-1602 beta-1,3-Glucuronyltransferase 1 (B3GAT1)

EC: 2.4.1.135

Package: 1 mg / Customize

Explanation: Chinese Hamster Ovary cell line, CHO-derived human beta-1,3-Glucuronyltransferase 1/B3GAT1 protein.

Definition: Measured by its ability to transfer GlcA from UDP-GlcA to lactose.

GE-1603 beta-1,4-Glucuronyltransferase 1 (B4GAT1)

Package: 1 mg / Customize

Explanation: Chinese Hamster Ovary cell line, CHO-derived human beta-1,4-Glucuronyltransferase 1/B4GAT1 protein.

Definition: Measured by its ability to transfer GlcA from UDP-GlcA to Xylose.

Glycosidases

GE-2001 alpha-Galactosidase A (GLA)

EC: 3.2.1.22

Package: 1 mg / Customize

Explanation: Chinese Hamster Ovary cell line, CHO-derived human alpha-Galactosidase A/GLA protein.

Definition: Measured by its ability to hydrolyze 4-methylumbelliferyl-alpha -D-galactopyranoside.

GE-2002 alpha-N-acetylgalactosaminidase (NAGA)

EC: 3.2.1.49

Package: 1 mg / Customize

Explanation: Chinese Hamster Ovary cell line, CHO-derived human alpha-N-acetylgalactosaminidase/ NAGA protein.

Definition: Measured by its ability to cleave alpha -N-acetylgalactosaminyl from 4-Nitrophenyl N-acetyl-alpha -D-galactosaminide.

GE-2003 Tissue alpha-L-Fucosidase (FUCA1)

EC: 3.2.1.51

Package: 1 mg / Customize

Explanation: Trichoplusia ni, High Five(baculovirus)-derived human Tissue alpha-L-Fucosidase/FUCA1 protein.

Definition: Measured by its ability to cleave a fluorogenic substrate 4-methylumbelliferyl-alpha -L-fucopyranoside.

GE-2004 Galactosylceramidase/GALC (GALC)

EC: 3.2.1.46

Package: 1 mg / Customize

Explanation: Chinese Hamster Ovary cell line, CHO-derived human Galactosylceramidase/GALC protein.

Definition: Measured by its ability to cleave a fluorogenic substrate, 4-Methylumbelliferyl-beta -D-galactopyranoside.

GE-2005 Glucosylceramidase (GBA)

EC: 3.2.1.45

Package: 1 mg / Customize

Explanation: Chinese Hamster Ovary cell line, CHO-derived human Glucosylceramidase/GBA protein.

Definition: Measured by its ability to hydrolyze 4-methylumbelliferyl-beta -D-glucopyranoside.

GE-2006 Heparanase (HPSE)

EC: 3.2.1.166

Package: 1 mg / Customize

Explanation: Chinese Hamster Ovary cell line, CHO-derived human Heparanase/HPSE protein.

Definition: Measured by its ability to release biotinylated heparan sulfate from Recombinant Human Syndecan-4.

GE-2007 Hyaluronidase 2 (HYAL2)

EC: 3.2.1.35

Package: 1 mg / Customize

Explanation: Chinese Hamster Ovary cell line, CHO-derived human Hyaluronidase 2/HYAL2 protein.

Definition: Measured by its ability to digest Cy5-Labeled Hyaluronan (Low MW) to dp1-dp4.

GE-2008 alpha-L-Iduronidase (IDUA)

EC: 3.2.1.76

Package: 1 mg / Customize

Explanation: Trichoplusia ni, High Five(baculovirus)-derived human alpha-L-Iduronidase/IDUA protein.

Definition: Measured by its ability to cleave a fluorogenic substrate, 4-Methylumbelliferyl alpha -L-iduronide under the described conditions.

GE-2009 Lysosomal alpha-Glucosidase (GAA)

EC: 3.2.1.20

Package: 1 mg / Customize

Explanation: Human embryonic kidney cell, HEK293-derived human Lysosomal alpha-Glucosidase protein.

Definition: Measured by its ability to release glucose from starch under the described conditions.

GE-2010 Mannosyl-oligosaccharide 1,2-alpha-mannosidase IA (MAN1A1)

EC: 3.2.1.113

Package: 1 mg / Customize

Explanation: Chinese Hamster Ovary cell line, CHO-derived human MAN1A1 protein.

Definition: Measured by its ability to remove alpha -mannose from the high mannose glycan Man-9 under the described conditions.

GE-2011 alpha-N-acetylglucosaminidase (NAGLU)

EC: 3.2.1.50

Package: 1 mg / Customize

Explanation: Chinese Hamster Ovary cell line, CHO-derived human alpha-N-acetylglucosaminidase/NAGLU protein.

Definition: Measured by its ability to hydrolyze 4-Nitrophenyl-N-acetyl-alpha -D-glucosaminide under the decribed conditions.

GE-2012 Lysosomal alpha-mannosidase (MAN2B1)

EC: 3.2.1.24

Package: 1 mg / Customize

Explanation: Human embryonic kidney cell, HEK293-derived human MAN2B1 protein.

Definition: Measured by its ability to hydrolyze 4-methylumbelliferyl-alpha -D-mannopyranoside under the described conditions.

GE-2101 Arylsulfatase A (ARSA)

EC: 3.1.6.8

Package: 1 mg / Customize

Explanation: Trichoplusia ni, High Five(baculovirus)-derived human Arylsulfatase A/ARSA protein.

Definition: Measured by its ability to hydrolyze the substrate 4-Nitrocatechol Sulfate (PNCS).

GE-2102 Arylsulfatase B (ARSB)

EC: 3.1.6.12

Package: 1 mg / Customize

Explanation: Chinese Hamster Ovary cell line, CHO-derived human Arylsulfatase B/ARSB protein.

Definition: Measured by its ability to hydrolyze the substrate 4-Nitrocatechol Sulfate (PNCS) under the described conditions.

GE-2103 Arylsulfatase G (ARSG)

EC: 3.1.6.1

Package: 1 mg / Customize

Explanation: Chinese Hamster Ovary cell line, CHO-derived mouse Arylsulfatase G/ARSG protein.

Definition: Measured by its ability to hydrolyze the substrate 4-Nitrocatechol Sulfate (PNCS) under the described conditions.

GE-2104 Glucosamine (N-acetyl)-6-Sulfatase (GNS)

EC: 3.1.6.14

Package: 1 mg / Customize

Explanation: Chinese Hamster Ovary cell line, CHO-derived human Glucosamine (N-acetyl)-6-Sulfatase/GNS protein.

Definition: Measured by its ability to hydrolyze the substrate 4-Nitrocatechol Sulfate (PNCS) under the described conditions.

GE-2105 Iduronate 2-Sulfatase (IDS)

EC: 3.1.6.13

Package: 1 mg / Customize

Explanation: Trichoplusia ni, High Five(baculovirus)-derived human Iduronate 2-Sulfatase/IDS protein.

Definition: Measured by its ability to hydrolyze the substrate 4-Nitrocatechol Sulfate (PNCS) under the described conditions.

GE-2106 N-Acetylgalactosamine-6-Sulfatase (GALNS)

EC: 3.1.6.4

Package: 1 mg / Customize

Explanation: Trichoplusia ni, High Five(baculovirus)-derived human N-Acetylgalactosamine-6-Sulfatase/GALNS protein.

Definition: Measured by its ability to hydrolyze the substrate 4-Nitrocatechol Sulfate (PNCS) under the described conditions.

GE-2107 Sulfamidase (SGSH)

EC: 3.10.1.1

Package: 1 mg / Customize

Explanation: Trichoplusia ni, High Five(baculovirus)-derived human Sulfamidase/SGSH protein.

Define: Measured by its ability to hydrolyze the substrate 4-Nitrocatechol Sulfate (PNCS) under the described conditions.

Protein Sulfotransferases

GE-3001 Tyrosylprotein Sulfotransferase 1 (TPST1)

EC: 2.8.2.20

Package: 1 mg / Customize

Explanation: Trichoplusia ni, High Five(baculovirus)-derived human Tyrosylprotein Sulfotransferase 1/TPST1 protein.

Definition: Measured by its ability to transfer sulfate from PAPS to PSGL-1 peptide (Gln-Ala-Thr-Glu-Tyr-Glu-Tyr-Leu-Asp-Tyr-Asp-Phe-Leu-Pro-Glu-Thr) under the described conditions.

GE-3002 Tyrosylprotein Sulfotransferase 2 (TPST2)

EC: 2.8.2.20

Package: 1 mg / Customize

Explanation: Chinese Hamster Ovary cell line, CHO-derived human Tyrosylprotein Sulfotransferase 2/TPST2 protein.

Definition: Measured by its ability to transfer sulfate from PAPS to PSGL-1 peptide (Gln-Ala-Thr-Glu-Tyr-Glu-Tyr-Leu-Asp-Tyr-Asp-Phe-Leu-Pro-Glu-Thr) under the described conditions.

Other Glycobiology-related Enzymes

GE-3003 GlcNAc-1-Phosphotransferase/GNPTAB & GNPTG

EC: 1.1.1.44

Package: 1 mg / Customize

Explanation: *Trichoplusia ni*, High Five(baculovirus)-derived human GlcNAc-1-Phosphotransferase protein.

Definition: Measured by its ability to dehydrogenate 6-phosphogluconic acid under the described conditions.