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ST3GAL4 Blocking Peptide (N-Term)

Synthetic peptide
Catalog # BP22025a

Specification

ST3GAL4 Blocking Peptide (N-Term) - Product Information

Primary Accession	Q11206
Other Accession	P61130

ST3GAL4 Blocking Peptide (N-Term) - Additional Information

Gene ID 6484

Other Names
CMP-N-acetylneuraminate-beta-galactosamide-alpha-2, 3-sialyltransferase 4, Alpha 2, 3-ST 4, Beta-galactoside alpha-2, 3-sialyltransferase 4, 2.4.99.-, Alpha 2, 3-sialyltransferase IV, Gal-NAc6S, Gal-beta-1, 4-GalNAc-alpha-2, 3-sialyltransferase, SAT-3, ST-4, ST3Gal IV, ST3GalIV, ST3GalA.2, STZ, Sialyltransferase 4C, SIAT4-C, ST3GAL4, CGS23, NANTA3, SIAT4C, STZ

Target/Specificity
The synthetic peptide sequence is selected from aa 46-57 of HUMAN ST3GAL4

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

ST3GAL4 Blocking Peptide (N-Term) - Protein Information

Name ST3GAL4

Synonyms CGS23, NANTA3, SIAT4C, STZ

Function
A beta-galactoside alpha2-3 sialyltransferase involved in terminal sialylation of glycoproteins and glycolipids (PubMed:8288606, PubMed:8611500). Catalyzes the transfer of sialic acid (N-acetyl- neuraminic acid; Neu5Ac) from the nucleotide sugar donor CMP-Neu5Ac onto acceptor Galbeta-(1->3)-GalNAc- and Galbeta-(1->4)-GlcNAc- terminated glycoconjugates through an alpha2-3 linkage (PubMed:8288606, PubMed:8611500). Plays a major role in hemostasis. Responsible for sialylation of plasma VWF/von Willebrand factor, preventing its

recognition by asialoglycoprotein receptors (ASGPR) and subsequent clearance. Regulates ASGPR-mediated clearance of platelets (By similarity). Participates in the biosynthesis of the sialyl Lewis X epitopes, both on O- and N-glycans, which are recognized by SELE/E- selectin, SELP/P-selectin and SELL/L-selectin. Essential for selectin- mediated rolling and adhesion of leukocytes during extravasation (PubMed:25498912). Contributes to adhesion and transendothelial migration of neutrophils likely through terminal sialylation of CXCR2 (By similarity). In glycosphingolipid biosynthesis, sialylates GM1 and GA1 gangliosides to form GD1a and GM1b, respectively (PubMed:8288606). Metabolizes brain c-series ganglioside GT1c forming GQ1c (By similarity). Synthesizes ganglioside LM1 (IV3Neu5Ac-nLc4Cer), a major structural component of peripheral nerve myelin (PubMed:8611500).

Cellular Location
Golgi apparatus, Golgi stack membrane; Single- pass type II membrane protein. Secreted. Note=Membrane-bound form in trans cisternae of Golgi. Secreted into the body fluid

Tissue Location
Highly expressed in adult placenta, heart and kidney.

ST3GAL4 Blocking Peptide (N-Term) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Blocking Peptides

ST3GAL4 Blocking Peptide (N-Term) - Images

ST3GAL4 Blocking Peptide (N-Term) - Background

It may catalyze the formation of the NeuAc-alpha-2,3- Gal-beta-1,3-GalNAc- or NeuAc-alpha-2,3-Gal-beta-1,3-GlcNAc- sequences found in terminal carbohydrate groups of glycoproteins and glycolipids. It may be involved in the biosynthesis of the sialyl Lewis X determinant. Also acts on the corresponding 1,3- galactosyl derivative.

ST3GAL4 Blocking Peptide (N-Term) - References

Kitagawa H.,et al.J. Biol. Chem. 271:931-938(1996).
Kitagawa H.,et al.J. Biol. Chem. 269:1394-1401(1994).
Sasaki K.,et al.J. Biol. Chem. 268:22782-22787(1993).
Grahn A.,et al.Glycoconj. J. 18:759-767(2001).
Ota T.,et al.Nat. Genet. 36:40-45(2004).