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GCNT1 Antibody (Center) Blocking Peptide
Synthetic peptide
Catalog # BP2404a

Specification

GCNT1 Antibody (Center) Blocking Peptide - Product Information

Primary Accession	Q02742
Other Accession	NP_001481

GCNT1 Antibody (Center) Blocking Peptide - Additional Information

Gene ID 2650

Other Names
Beta-1, 3-galactosyl-O-glycosyl-glycoprotein beta-1, 6-N-acetylglucosaminyltransferase, Core 2-branching enzyme, Core2-GlcNAc-transferase, C2GNT, Core 2 GNT, GCNT1, NACGT2

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP2404a was selected from the Center region of human GCNT1 . A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

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.

GCNT1 Antibody (Center) Blocking Peptide - Protein Information

Name GCNT1

Synonyms NACGT2

Function
Glycosyltransferase that catalyzes the transfer of an N- acetylglucosamine (GlcNAc) moiety in beta1-6 linkage from UDP-GlcNAc onto mucin-type core 1 O-glycan to form the branched mucin-type core 2 O-glycan (PubMed:1329093, PubMed:23027862). The catalysis is metal ion- independent and occurs with inversion of the anomeric configuration of sugar donor (By similarity). Selectively involved in synthesis of mucin-type core 2 O-glycans that serve as scaffolds for the display of selectin ligand sialyl Lewis X epitope by myeloid cells, with an impact on homeostasis and recruitment to

inflammatory sites (By similarity). Can also act on glycolipid substrates. Transfers GlcNAc moiety to GalGb4Cer globosides in a reaction step to the synthesis of stage- specific embryonic antigen 1 (SSEA-1) determinant (By similarity). Can use Galbeta1-3GalNAcalpha1- and Galbeta1-3GalNAcbeta1- oligosaccharide derivatives as acceptor substrates (By similarity).

Cellular Location
Golgi apparatus membrane; Single-pass type II membrane protein. Note=Also detected in the trans-Golgi network

Tissue Location
Highly expressed in activated T-lymphocytes and myeloid cells

GCNT1 Antibody (Center) Blocking Peptide - Protocols

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

- Blocking Peptides

GCNT1 Antibody (Center) Blocking Peptide - Images

GCNT1 Antibody (Center) Blocking Peptide - Background

Glycosylation is one of the most universal but at the same time complex protein modifications. Modification with sugar moeties can be both co- translational and post- translational, occurring in the endoplasmatic reticulum and golgi. Three different forms of glycosylation can be distinguished: N-linked oligosaccharides, O-linked oligosaccharides and glycosyl- phosphatidylinositol (GPI-) anchors. Glycosylation results in thousands of distinct, bioactive glycoproteins resident throughout the cell that strongly determine protein-protein, carbohydrate-protein, membrane, and adhesion properties. Diseases associated with glycosylation defects include Congenital disorders of glycosylation, (CDG), also known as carbohydrate deficient glycoprotein syndromes, and diseases associated with advanced aging.

GCNT1 Antibody (Center) Blocking Peptide - References

Bierhuizen, M.F., et al., Glycobiology 5(4):417-425 (1995).Bierhuizen, M.F., et al., Proc. Natl. Acad. Sci. U.S.A. 89(19):9326-9330 (1992).