

GCNT1 Antibody (Center)
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP2404a**Specification**

GCNT1 Antibody (Center) - Product Information

Application	WB, IHC-P,E
Primary Accession	Q02742
Other Accession	NP_001481
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	49799
Antigen Region	88-117

GCNT1 Antibody (Center) - 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

This GCNT1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 88-117 amino acids from the Central region of human GCNT1.

Dilution

WB~~1:1000
IHC-P~~1:50~100

Format

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.

Storage

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

GCNT1 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

GCNT1 Antibody (Center) - 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

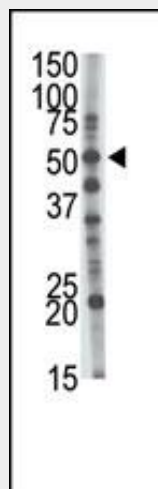
Highly expressed in activated T-lymphocytes and myeloid cells

GCNT1 Antibody (Center) - Protocols

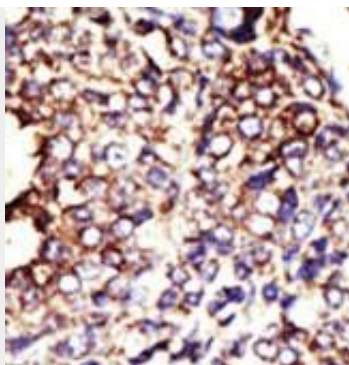
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

GCNT1 Antibody (Center) - Images



The anti-GCNT1 Pab (Cat. #AP2404a) is used in Western blot to detect GCNT1 in mouse kidney tissue lysate.



Formalin-fixed and paraffin-embedded human cancer tissue reacted with the primary antibody, which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated. BC = breast carcinoma; HC = hepatocarcinoma.

GCNT1 Antibody (Center) - Background

Glycosylation is one of the most universal but at the same time complex protein modifications. Modification with sugar moieties 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) - 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).