

Active Recombinant Human Glucosaminyl (N-acetyl) Transferase 1, Core 2, His-tagged

Cat. No. GCNT1-617H Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant Human GCNT1 protein was expressed in Murine myeloma cellline. Arg33-His428, with an N-terminal CD33 signals sequence and a C-terminal 6-His tag.
Species	Human
Source	Mammalian Cells
Protein Length	33-428 a.a.
Description	Mucin type O-glycans are initiated with an O-GalNAc attachment to a serine or threonine in a polypeptide. The O-GalNAc residues are subsequently extended by various glycosyltransferases resulting in different types of O-glycans. Most O-glycans contain the core 1 structure, Gal β -13GalNAc. GCNT1 converts the core 1 O-glycan to core 2 O-glycan, Gal β 1-3 (GlcNAc β 1-6) GalNAc, via the addition of a GlcNAc residue. Various ligand carbohydrates can be formed from core 2 branched oligosaccharides.
Form	Supplied as a 0.2 μ m filtered solution in Tris, NaCl and Brij35.
N-terminal Sequence	Arg33
Molecular Weight	47 kDa
Activity	Measured by its ability to transfer GlcNAc from UDP-GlcNAc to bovine asialofetuin.

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

This specific activity is > 35 pmol/min/μg, as measured under the described conditions.

Endotoxin Level <1.0EU per 1μg of the protein by the LAL method.

SDS-PAGE 50-57kDa, reducing conditions.

Purity >95%, by SDS-PAGE under reducing conditions and visualized by Colloidal CoomassieBlue stain at 5 μg per lane.

Storage Use a manual defrost freezer and avoid repeated freeze-thaw cycles. 6 months from date of receipt, -20 to -70°C as supplied. 3 months, -20 to -70°C under sterile conditions after opening.

GENE INFORMATION

Gene Name GCNT1 glucosaminyl (N-acetyl)transferase 1, core 2 [Homo sapiens]

Official Symbol GCNT1

Synonyms GCNT1; glucosaminyl(N-acetyl) transferase 1, core 2; glucosaminyl (N acetyl) transferase 1, core2 (beta 1, 6 N acetylglucosaminyltransferase); NACGT2; beta-1,3-galactosyl-O-glycosyl-glycoprotein; beta-1, 6-N-acetylglucosaminyltransferase

Gene ID 2650

mRNA Refseq NM_001097633

Protein Refseq NP_001091102

MIM 600391

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UniProt ID	Q02742
Chromosome Location	9q13
Pathway	Metabolic pathways; Metabolism of proteins; Mucin type O-Glycan biosynthesis; O-glycan biosynthesis; O-linked glycosylation of mucins; Post-translational protein modification
Function	beta-1,3-galactosyl-O-glycosyl-glycoprotein beta-1,6-N-acetylglucosaminyltransferase activity; transferase activity, transferring glycosyl groups

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