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

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

SPECIFICATION

Product Overview	RecombinantHuman 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
ProteinLength	33-428 a.a.
Description	MucintypeO-glycans are initiated with an O-GalNAc attachment to a serine or threoninein a polypeptide. The O-GalNAc residues are subsequently extended by variousglycosyltransferases resulting in different types of O-glycans. Most O-glycanscontain the core 1 structure, Galβ-13GalNAc. GCNT1 convertsthe core 1 O-glycan to core 2 O-glycan, Galβ1-3 (GlcNAcβ1-6) GalNAc, via theaddition of a GlcNAc residue. Various ligand carbohydrates can be formed fromcore 2 branched oligosaccharides.
Form	Supplied as a 0.2 μmfiltered solution in Tris, NaCl and Brij35.
N-terminalSequence	Arg33
MolecularWeight	47 kDa
Activity	Measuredby its ability to transfer GlcNAc from UDP-GlcNAc to bovine asialofetuin.

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	Thespecific 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 amanual defrost freezer and avoid repeated freezethaw cycles. 6 monthsfrom date of receipt, -20 to -70°C as supplied. 3 months,-20to-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-glycanbiosynthesis; O-linked glycosylation of mucins; Post-translational proteinmodification
Function	beta-1,3-galactosyl-O-glycosyl-glycoproteinbeta-1,6-N-acetylglucosaminyltransferase activity; transferase activity, transferringglycosyl groups

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