

Active Recombinant Human UDP-N-acetyl-Alpha-D-Galactosamine: Polypeptide N-Acetylgalactosaminyltransferase 3 (GalNAc-T3), His-tagged

Cat. No. GALNT3-601H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human GALNT3 protein was expressed in Murine myeloma cellline. Gln38-Asp633, with N-terminal CD33 signals sequence and 6-His tag.
Species	Human
Source	Mammalian Cells
Protein Length	38-633 a.a.
Description	GALNT3 catalyzes the initial step for O-glycosylation by transferring GalNAc to Thr or Ser residues (GalNAc α 1-O-Ser/Thr) in the Golgi compartment. Structurally, the GALNTs consist of an N-terminal catalytic domain tethered by a short link to a C-terminal ricin-like lectin domain containing three potential carbohydrate-binding sites. Twenty distinct GALNT isoforms have been detected in humans. These isoforms display both unique and overlapping substrate specificities with no known universal consensus glycosylation sequence. Glycosylation of mucins results from the successive, often hierarchical, action of several specific GALNTs.
Form	Supplied as a 0.2 umfiltered solution in Tris and NaCl.
N-terminal Sequence	His
Molecular Weight	69 kDa

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Activity	Measured by its ability to transfer GalNAc from UDP-GalNAc to peptide EA2 from AnaSpec, Inc. The specific activity is > 350 pmol/min/μg, as measured under the described conditions.
Endotoxin Level	<1.0 EU per 1 μg of the protein by the LAL method.
SDS-PAGE	60-75 kDa, reducing conditions.
Purity	>95%, by SDS-PAGE under reducing conditions and visualized by Colloidal Coomassie Brilliant Blue 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	GALNT3 UDP-N-acetyl-alpha-D-galactosamine: polypeptide N-acetylgalactosaminyltransferase 3 (GalNAc-T3) [Homo sapiens]
Official Symbol	GALNT3
Synonyms	GALNT3; UDP-N-acetyl-alpha-D-galactosamine: polypeptide N-acetylgalactosaminyltransferase 3 (GalNAc-T3); HHS; HFTC; GalNAc-T3; polypeptide N-acetylgalactosaminyltransferase 3; pp-GaNTase 3; GalNAc transferase 3; polypeptide GalNAc transferase 3; polypeptide GalNAc-transferase T3; protein-UDP acetylgalactosaminyltransferase 3; UDP-GalNAc: polypeptide N-acetylgalactosaminyltransferase 3; EC 2.4.1.41
Gene ID	2591

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mRNA Refseq	NM_004482
Protein Refseq	NP_004473
MIM	601756
UniProt ID	Q14435
Chromosome Location	2q24-q31
Pathway	Metabolic pathways; Metabolism of proteins; Mucin type O-Glycan biosynthesis; O-glycan biosynthesis; O-linked glycosylation of mucins; Post-translational protein modification
Function	calcium ion binding; manganese ion binding; polypeptide N-acetylgalactosaminyltransferase activity; sugar binding; transferase activity, transferring glycosyl groups

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