

OTI Disclaimer:	The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. More info
OTI Annotation:	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
Components:	The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).
Reconstitution Method:	<ol style="list-style-type: none">1. Centrifuge at 5,000xg for 5min.2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.3. Close the tube and incubate for 10 minutes at room temperature.4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.
RefSeq:	NM_003774.3
RefSeq Size:	5408 bp
RefSeq ORF:	1737 bp
Locus ID:	8693
UniProt ID:	Q8N4A0
Cytogenetics:	12q21.33
Domains:	RICIN, Glycos_transf_2
Protein Pathways:	Metabolic pathways, O-Glycan biosynthesis
MW:	66.6 kDa
Gene Summary:	This gene encodes a member of the UDP-N-acetyl-alpha-D-galactosamine:polypeptide N-acetylgalactosaminyltransferase (GalNAc-T) family of enzymes. GalNAc-Ts initiate mucin-type O-linked glycosylation in the Golgi apparatus by catalyzing the transfer of GalNAc to serine and threonine residues on target proteins. They are characterized by an N-terminal transmembrane domain, a stem region, a luminal catalytic domain containing a GT1 motif and Gal/GalNAc transferase motif, and a C-terminal ricin/lectin-like domain. GalNAc-Ts have different, but overlapping, substrate specificities and patterns of expression. In vitro, the encoded protein can complement other GalNAc-Ts in the complete O-glycosylation of the mucin-1 tandem repeat and can O-glycosylate the P-selectin glycoprotein ligand-1 molecule. The coding region of this gene is contained within a single exon. Fusion transcripts, which combine part of this gene with the 5' exons of the neighboring POC1B (POC1 centriolar protein homolog B) gene, also exist. [provided by RefSeq, Dec 2010]