

## Product datasheet for **SC302952**

### **B3GALNT1 (NM\_001038628) Human Untagged Clone**

#### Product data:

Product Type:	Expression Plasmids
Product Name:	B3GALNT1 (NM_001038628) Human Untagged Clone
Tag:	Tag Free
Symbol:	B3GALNT1
Synonyms:	B3GALT3; beta3Gal-T3; galT3; Gb4Cer; GLCT3; GLOB; P; P1
Vector:	<u>pCMV6 series</u>
Fully Sequenced ORF:	>NCBI ORF sequence for NM_001038628, the custom clone sequence may differ by one or more nucleotides ATGGCCTCGGCTCTCTGGACTGTCCTTCCGAGTAGGATGTCACCTGAGATCCCTCAAATGG AGCCTCTGCTGCTGTCACCTCTGAGTTTCTTTGTGATGTGGTACCTCAGCCTTCCCCAC TACAATGTGATAGAACCGGTGAAGTGGATGACTTCTATGAGTATGAGCCGATTTACAGA CAAGACTTTCACCTTCACACTTCGAGAGCATTCAAAGTCTCTCATCAAAATCCATTTCTG GTCATTCTGGTGACCTCCCACCTTCAGATGTGAAAGCCAGGCAGGCCATTAGAGTTACT TGGGGTGAAAAAAGTCTTGGTGGGGATATGAGGTTCTTACATTTTTCTTATTAGGCCAA GAGGCTGAAAAGGAAGACAAAATGTTGGCATTGTCCTTAGAGGATGAACACCTTCTTTAT GGTGACATAATCCGACAAGATTTTTAGACACATAATAAACCTGACCTTGAAAACCAT ATGGCATTGAGGTGGTAACTGAGTTTTGCCCAATGCCAAGTACGTAATGAAGACAGAC ACTGATGTTTTCAATACTGGCAATTTAGTGAAGTATCTTTAAACCTAAACCACTCA GAGAAGTTTTTACAGGTTATCCTTAATTGATAATTATCCTATAGAGGATTTTACCAA AAAACCATATTTCTTACCAGGAGTATCCTTTCAAGGTGTTCCCTCCATACTGCAGTGGG TTGGGTTATATAATGTCCAGAGATTTGGTGCCAAGGATCTATGAAATGATGGGTCACGTA AAACCCATCAAGTTTGAAGATGTTTATGTCGGGATCTGTTGAATTTATTTAAAGTGAAC ATTCATATCCAGAAGACACAAATCTTTCTTTCTATATAGAATCCATTTGGATGTCTGT CAACTGAGACGTGTGATTGCAGCCCATGGCTTTTCTTCCAAGGAGATCATCACTTTTTGG CAGGTCATGCTAAGGAACACCACATGCCATTATTAA
Restriction Sites:	Please inquire
ACCN:	NM_001038628
OTI Disclaimer:	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
OTI Annotation:	This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.



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<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<u>NM_001038628.1, NP_001033717.1</u>
<b>RefSeq Size:</b>	3642 bp
<b>RefSeq ORF:</b>	996 bp
<b>Locus ID:</b>	8706
<b>UniProt ID:</b>	<u>Q75752</u>
<b>Cytogenetics:</b>	3q26.1
<b>Protein Families:</b>	Transmembrane
<b>Protein Pathways:</b>	Glycosphingolipid biosynthesis - globo series, Metabolic pathways
<b>Gene Summary:</b>	<p>This gene is a member of the beta-1,3-galactosyltransferase (beta3GalT) gene family. This family encodes type II membrane-bound glycoproteins with diverse enzymatic functions using different donor substrates (UDP-galactose and UDP-N-acetylglucosamine) and different acceptor sugars (N-acetylglucosamine, galactose, N-acetylgalactosamine). The beta3GalT genes are distantly related to the Drosophila Brainiac gene and have the protein coding sequence contained in a single exon. The beta3GalT proteins also contain conserved sequences not found in the beta4GalT or alpha3GalT proteins. The carbohydrate chains synthesized by these enzymes are designated as type 1, whereas beta4GalT enzymes synthesize type 2 carbohydrate chains. The ratio of type 1:type 2 chains changes during embryogenesis. By sequence similarity, the beta3GalT genes fall into at least two groups: beta3GalT4 and 4 other beta3GalT genes (beta3GalT1-3, beta3GalT5). The encoded protein of this gene does not use N-acetylglucosamine as an acceptor sugar at all. [provided by RefSeq, Mar 2017]</p> <p>Transcript Variant: This variant (5) encodes isoform b. Variants 1-5 and 8-39 all encode the same isoform (b).</p>