

## Product datasheet for MR222662

### B3gnt5 (NM\_001159407) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	B3gnt5 (NM_001159407) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	B3gnt5
Synonyms:	beta3GnT5
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>MR222662 representing NM_001159407 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGAGACTGTTTGTAGCAGAAGAGTCAAAGATGGAAAATTTTCACTTTTTGTCACTTGTTTTATAT  
TAAGCTTCATGGTTTTTGGAGCCCAATCAATAATTACATCATGAGCCATATGAAGTCTACTCCTACAG  
ATACCTCGTAAATAGCTATGGCTTTGTAACAATTCCCTGTCTCTCAAGCACAGCTCTGTGCAGCCTCAC  
TACCCATACTTGATCAACCACAGAGAGAAGTGTCAAGGCTCAAGATGTCTCCTCTTACTGTTATAAAGA  
CTGCCCTGAAAATATGGCCGACGTTCTGCAATCAGAAAACGTGGGCAATGAGAATATGTTCAAGTC  
TCAACTCAATGCCAACATCAAAATCTGTTTGCATTAGGAACTCCTGGTCCACTGAAGGGAAAAGAACTG  
CAAAAAAGACTAATCGGGGAAGATCAAGTGTACAAGGATAAATTCAGCAAGATTTTATTGATTCTTTCC  
ACAATCTTACTTCTAAATTCCTTCTTCAAGTTCAGCTGGGCAATACCTTTTGTCCACATGCCAAATTCCT  
GATGACTGCTGATGATGATATATTTATCCACATGCCAAATCTCATTGAATATCTTCAAGGGCTAGAGCAG  
ATTGGAGTTCGAGACTTTTGGATTGGTCACGTTTCATCGAGGTGGCCCTCCTGTTAGGGATAAAAGCAGCA  
AATACTATGTTCCCTATGAAATGTACAAGTGGCCAGCCTACCTGACTATACAGCTGGTGCCTATGT  
TGTCTCCAGAGATGTAGCTGCCAAAATCTATGAGGCATCGCAGACTGAATTCAGTATGTACATAGAT  
GATGATTCATGGGCCTCTGTGCCAATAAAGTGGGAATCTTGCCACAGGACCATGATTTTTCTCTGGGG  
AAGGGAAAATTCCTTATCACCCCTGCATCTATGAAAAGATGATGACATCTCACGGACACTTACAAGATCT  
GCAGGACCTCTGGATAGAGGCTACACATCCTAAAGTAAAGAACATTTCAAAGGGTTTTTGGTCAAATA  
TACTGCAGGTTAATTAAGATAGTCTTCTCTGCAGACTGACTTACAGGAATTCATACCCTTGTGGGCTG  
CATTTGCT

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >MR222662 representing NM\_001159407  
 Red=Cloning site Green=Tags(s)

MRLFVSRVRKWKIFHFFVTCFILSFMVFWSPINNYIMSHMKSYSYRYLVNSYGFVNNLSLKHSSVQPH  
 YPYLINHREKCQAQDVLFFFIKTAPENYGRRSAIRKTWGNENYVQSQLNANIKILFALGTPGPKGKEL  
 QKRLIGEDQVYKDIIQQDFIDSFHNLTSKFLQFSWANTFCPHAKFLMTADDDIFIHMPNLIEYLQGLEQ  
 IGVRDFWIGHVHRGGPPVRDKSSKYYVPYEMKWPAYPDYTAGAAYVVS RDVAAKIYEASQTLNSSMYID  
 DVFMGLCANKVGILPQDHVFFS GEGKIPYHPCIYEKMMTSHGHLQDLQDLWIEATHPKVKNISKGFFGQI  
 YCRLIKIVLLCRLTYRNSYPCWAAFA

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_001159407

**ORF Size:** 1128 bp

**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:**

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\\_001159407.1](#), [NP\\_001152879.1](#)

**RefSeq Size:** 4872 bp

**RefSeq ORF:** 1131 bp

**Locus ID:** 108105

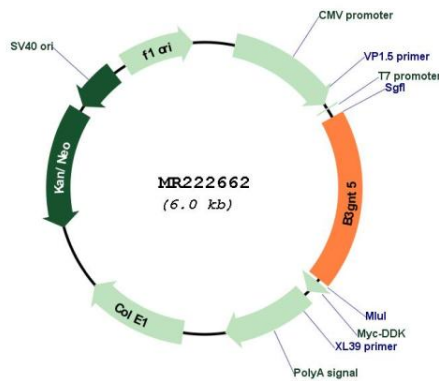
**UniProt ID:** [Q8BGY6](#)

**Cytogenetics:** 16 A3

**MW:** 43.9 kDa

**Gene Summary:** Beta-1,3-N-acetylglucosaminyltransferase that plays a key role in the synthesis of lacto- or neolacto-series carbohydrate chains on glycolipids, notably by participating in biosynthesis of HNK-1 and Lewis X carbohydrate structures. Has strong activity toward lactosylceramide (LacCer) and neolactotetraosylceramide (nLc(4)Cer; paragloboside), resulting in the synthesis of Lc(3)Cer and neolactopentaosylceramide (nLc(5)Cer), respectively. Plays a central role in regulating neolacto-series glycolipid synthesis during embryonic development. [UniProtKB/Swiss-Prot Function]

**Product images:**



Circular map for MR222662