

## Product datasheet for **RR216518**

### **B3gnt5 (NM\_053932) Rat Tagged ORF Clone**

#### Product data:

Product Type:	Expression Plasmids
Product Name:	B3gnt5 (NM_053932) Rat Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	B3gnt5
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin
ORF Nucleotide Sequence:	>RR216518 representing NM_053932 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGAGAGTATTCGTCAGCAGCAGAAGAGTCAAAGATGGCAGTTTTTTCACCTATTTGCCATTTGTTTTA  
TATTAAGCTTTATGGTTTTTTGGGGCCCGATCAATAATTACATCATGAGCCACATGAAGTCTACTCCTA  
CAGATACCTTATAAATAGCTATGACTTTGTGAACGATTCCTGTCTCTCAAGCACAGCTGTGTCAGCCT  
CACCACCATACTTGATCAACCACAGAGAGAAGTGTGAGGCCCAAGATGTCCTCCTTACTCTTTATAA  
AGACTGCCCTGAAAACACGAGCGACGTTCTGCCATCAGAAAAGACGTGGGGCAACGAGAATTACGTCCA  
GTCTCAGCTCAACGCCAACATCAAAATCTGTTGCGGTTAGGAACTCCTCATCCACTGAAGGGAAAAGAG  
CTGCAAAAAGACTGATTTGGGAAGATCAAGTGTACCACGACATAATTCAGCAAGATTTCACTGATTCTT  
TCCACAATCTTACTTTAAATTTCTTCTCAGTTCGGCTGGGCAACACCTTTTGCCACATGCCAGATT  
CCTGATGACTGCTGATGATGACATATTTATCCACATGCCAAATCTCATTGAATACCTTCAAGGGCTGGAG  
CAGGTTGGAGTTCGAGACTTTTGGATTGGTCACGTTACCGAGGGGGCCCTCCTGTTAGAGACAAAAGTA  
GCAAGTACTATGTTCCCTATGAAATGTACAAGTGGCCAGCCTACCCTGACTATACCGCCGGTGTGCCTA  
TGTCGTCTCCAACGATGTAGCTGCCAAATCTATGAGGCATCACAGACGCTGAATTCAGCATGTACATA  
GACGATGTGTTCTGCGCCTCTGCGCCAATAAAGTGGGGTCTGCCACAGGACCATGATTTTTCTCTG  
GGGAAGGGAAGATTCCCTACCATCCCTGCATCTATGAAAAGATGATAACGTCTCATGGCACTCACAAAG  
CCTACAGGACCTCTGGGTGGAGGCCACAGATCCTAAAGTGAAGGACATTTGAAAGGGTTTTTGGTTCAG  
ATCTACTGCAGGTTAATTAAGATAGTCTTCTCTGCACTGACTTACAGGAACATACCTTGTAGGG  
CTGCATTTGCT

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTTAA



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**Protein Sequence:** >RR216518 representing NM\_053932  
 Red=Cloning site Green=Tags(s)

MRV FVSSRRVKRWQFFHLFAICFILSFMVFWGPINNYIMSHMKSYSYRYLINSYDFVNDLSLKHSSVQP  
 HHPYLINHREKCAQDVL LLLFIKTAPENYERRSAIRKTWGNENYVQSQLNANIKILFALGTPHLKGE  
 LQKRLIWEDQVYHDI IQQDF TDSFHL TFKFL LQFGWANTFCPHARFLMTADDDIF IHMPNLIEYLQGLE  
 QVGV RDFWIGHVHRGPPVRDKSSKYYVPYEMYKWPAYPDYTAGAAYVVSNDVAAKIYEASQTLNSSMYI  
 DDVFMGLCANKVGVPQDHVFFSGEGKIPYHPCIYEKMITSHGHSQDLQDLWVEATDPKVVDISKGFFGQ  
 IYCRLIKIVLLCRLTYRNSYPCRAAFA

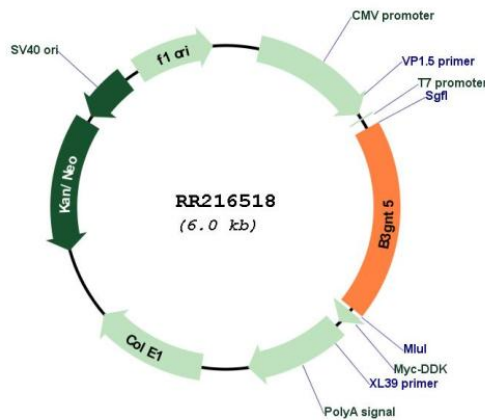
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**Plasmid Map:**



**ACCN:** NM\_053932

<b>ORF Size:</b>	1131 bp
<b>OTI Disclaimer:</b>	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. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<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>	<a href="#">NM_053932.1</a> , <a href="#">NP_446384.1</a>
<b>RefSeq Size:</b>	4209 bp
<b>RefSeq ORF:</b>	1134 bp
<b>Locus ID:</b>	116740
<b>UniProt ID:</b>	<a href="#">Q99NB2</a>
<b>Cytogenetics:</b>	11q23
<b>MW:</b>	44.1 kDa
<b>Gene Summary:</b>	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 (By similarity). [UniProtKB/Swiss-Prot Function]