

## Product datasheet for MR225689

### B4galt5 (NM\_019835) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	B4galt5 (NM_019835) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	B4galt5
Synonyms:	9430078I07Rik; AW049941; AW539721
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>MR225689 representing NM_019835 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGCGCGCCCGCGGGGCTGCTGCGGCTGCCGCGCGCTCGCTGCTCGCCGCGCTCTTCTTCTTCTCGC  
TGTCGTCCTCGTGTCTACTTCGTCATGTGGCGCCCGCATAGTGAACACCTACCTCTTCATGGTGCA  
GGCTCAGGGCATCTACTGCGGGACAATGTGAGGACCATCGGTGCCAGGTGTACGAGCAGGTGGTCCGC  
AGCGCCTATGCCAAGAGGAACAGCAGCCTGAATGACTCAGATTATCCTCTGGACTTGAACCACAGTGAAG  
CCTTTCCCCCAACCACGACCTTTCTTCTGAAGATTTACCTACTTTGCCAACCCCTTGCCAGAGAG  
GCTCCCTTCCATGAAGGGCCGATAGATATAAACATGAGTGAGATCGCAATGGACGATATTCATGAGCTG  
TTCTCCAGAGACCCGGCCATTAAGCTCGGAGGGCACTGGAAGCCTGCAGACTGTGTGCCTCGGTGGAAGG  
TGGCTATCCTCATCCCCTTCGGAACCGCCATGAGCACCTCCCGGTCTCCTGAGACACCTGCTCCCAT  
GCTTCAGCGCCAGCGCCTGCAGTTCGCCTTCTATGTGATCGAGCAAGTTGGCACCCAGCCCTTAACCGA  
GCCATGCTTTTCAATGTTGGTTTTCAAGAAGCCATGAAGGACTTGGATTGGGATTGTCTGATCTTCCATG  
ACGTCGATCACATACCTGAGAGTGACCGAACTACTATGGCTGCGGGCAGATGCCAGGCACTTTGCAAC  
CAAGCTGGACAAGTACATGTACCTGCTGCCCTACACTGAGTTTTTTGGTGGCGTGAGCGGCTGACTGTA  
GAACAGTTTTCGGAAAATCAATGGCTTTCTAATGCCTTCTGGGCTGGGGCGGAGAGATGACGACTGT  
GGAACAGGGTACAAAATGCAGGCTATTCTGTGAGCCGGCCAGAAGGGGACACAGGAAAATACAAGTCCAT  
TCCTCACCCATCGAGGAGAGTCCAGTTTTCTTGGCAGGTACGCTCTGCTGAGGAAGTCAAGGAGCGG  
CAAGGACTGGATGGCCTCAACAACCTGAACTACTCTGCGAATGTCACGTACGACGCTTGTATAAAAAACA  
TAACTGTCAACTTGACACCCGAGCTGGCTCAGGTGACTGAGTAC

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >MR225689 representing NM\_019835  
Red=Cloning site Green=Tags(s)

MRARRGLRLPRRSLLAALFFFSLSSSLLYFVYVAPGIVNTYLFMVQAQGILLRDNVRTIGAQVVEQVVR  
 SAYAKRNSLNDSDYPLDLNHSEAFPPTTFLPEDFTYFANHPCPERLPSMKGPIDINMSEIAMDDIHEL  
 FSRDPAIKLGGHWKPADCVPWKVAILIPFRNRHEHLPVLLRHLLPMLQRQLQFAFYVIEQVGTQPFNR  
 AMLFNVGFQEAMKDLWDCLIFHDVDHIPESDRNYYGCGQMPRHFAKLDKYMILLPYTEFFGGVSGLTV  
 EQFRKINGFPNAFWGWWGEGDDDLWNRVQNAAGYSVSRPEGDTGKYKSIPIHHRGEVQFLGRYALLRKSKE  
 QGLDGLNLLNYSANVTYDALYKNITVNLPELAQVTEY

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mm9018\\_h10.zip](https://cdn.origene.com/chromatograms/mm9018_h10.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



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

**ACCN:** NM\_019835

**ORF Size:** 1164 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\\_019835.2](#), [NP\\_062809.2](#)

**RefSeq Size:** 4205 bp

**RefSeq ORF:** 1167 bp

**Locus ID:** 56336

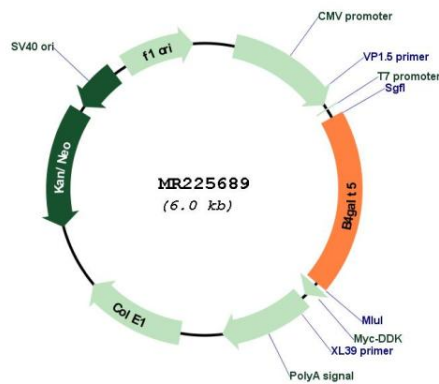
**UniProt ID:** [Q9JMK0](#)

**Cytogenetics:** 2 H3

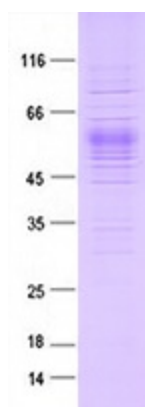
**MW:** 45.3 kDa

**Gene Summary:** Catalyzes the synthesis of lactosylceramide (LacCer) via the transfer of galactose from UDP-galactose to glucosylceramide (GlcCer) (PubMed:21057870, PubMed:23882130, PubMed:30114188). LacCer is the starting point in the biosynthesis of all gangliosides (membrane-bound glycosphingolipids) which play pivotal roles in the CNS including neuronal maturation and axonal and myelin formation (PubMed:30114188). Plays a role in the glycosylation of BMPR1A and regulation of its protein stability (PubMed:29415997). Essential for extraembryonic development during early embryogenesis (PubMed:20574042, PubMed:21057870).[UniProtKB/Swiss-Prot Function]

### Product images:



Circular map for MR225689



Coomassie blue staining of purified B4galt5 protein (Cat# [TP525689]). The protein was produced from HEK293T cells transfected with B4galt5 cDNA clone (Cat# MR225689) using MegaTran 2.0 (Cat# [TT210002]).