

Product datasheet for MR206563

B4gat1 (NM_175383) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	B4gat1 (NM_175383) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	B4gat1
Synonyms:	1500032M01Rik; B3gnt1; B3gnt6; BETA3GNT1; iGAT; iGNT
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>MR206563 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGCAAATGTCCTACGCCATCCGATGCGCCTTCTACCAGCTGCTGCTGGCCGCGCTCATGTTGGTGGCAA
TGCTGCAGCTGCTCTACCTATCGCTGCTCTCCGGACTGCACGGCCAGGAGGAGCAGGAACAGTATTTGCA
GTTCTTCCCGCGTCTCCGCGATCCGTAGACCAGGTAAGTCTCAACTCCGCACCGCACTGGCCTCCGGA
GGCGTTCTGGATGCCAGCGGCGATTATCGCGTCTACAGGGGTCTATTGAAGACCACCATGGACCCCAACG
ATGTCATCTTAGCTACGCATGCCAGTGTGGACAACCTACTACACCTGTCCGGACTTCTGGAGCGCTGGGA
GGTCCGCTGTCCGTTTCAGTGTTCGCGGCCACCAAGAGGAGGCGCAGCTGGCCACGGTCTGGCCTAC
GCGCTGAGTAGCCACTGCCCCGAGATGCGCGCTAGGGTCCCATGCACCTCGTGTGCCCTCGCGTATG
AGGCTGCTGTGCCCGACCCCGAGAACCTGGGGAGTTTGCCTGCTGCGGTCTGCAAGAGGTCTTTGA
CAAGCTAGCCAGGGTGGCCAGCCCGGATTAATTATGCACTAGGGACCAACACCTCCTATCCCAATAAC
CTGTTAAGGAATCTGGCTCGGGAAGAGGCCAATACGCCCTGGTATTGATGTGGACATGGTGCCAGCG
AAGGGCTGTGGAGAGCCTGAGGAAATGTTGGATCAGAGCAATCACTGGGATGGCACAGCCCTGGTGGT
GCCTGCATTTGAAATCCGCCGTCCCGCGAATGCCGATGAACAAGAACGAGCTGGTGCAGCTCTATCAG
GTGGCGAAGTCCGCCCTTCTATTATGGGCTGTGCACGCTTCCATGCCGCCACCAACTACTCCCGT
GGGTCAACCTGCCAGAGGAGAGCTTGTGAGACCTGCCTACGTGGTGCCTGGAGGGACCCCTGGGAACC
ATTTTATGTGGCTGGAGGAAAGGTGCCACATTTGACGAACGCTTTTCGGCAGTATGGTTTCAATCGAATC
AGCCAGGCTTGTGAGCTGCACGTGGCAGGGTTAATTTGAGGTGCTGAATGAAGTTTTCTGGTTCATA
AGGATTCAAGGAGCATTGAAGTTCCATCCCCAAAAGGAGGCTGAAAACCAGCGCAATAAGATCCTTTA
CCGCCAGTTCAAACAGGAGTTGAAGGCTAGGTACCCCAACTCTCCCCACCGATGC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >MR206563 protein sequence
 Red=Cloning site Green=Tags(s)

MQMSYAIRCAFYQLLLAALMLVAMLQLLYLSLLSGLHGQEEQEYFEFFPPSPRSVDQVKSQRLTALASG
 GVLDAAGDYRVYRGLLKTTPNDVILATHASVDNLLHLSGLLERWEGPLSVSVFAATKEEAQLATVLAY
 ALSSHCPEMRARVAMHLVCPSTRYEAAVDPREPGEFALLRSCQEVFDKLARVAQPGINYLGTNTSYPN
 LLRNLAREEANYALVIDVDMVPEGLWRGLREMLDQSNHWDGTALVVPFAFEIRRSRMPMNKNELVQLYQ
 VGEVRFYYGLCTPCHAPTNYSRWVNLPEESLLRPAYVVPWRDPWEPFYVAGGKVPTFDERFRQYGFNRI
 SQACELHVAGFNFEVLNEGFLVHKGFKEALKFHPQKEAENQRNKILYRQFKQELKARYPNPSPHRC

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_175383

ORF Size: 1248 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_175383.1](#), [NM_175383.2](#), [NP_780592.1](#)

RefSeq Size: 2035 bp

RefSeq ORF: 1248 bp

Locus ID: 108902

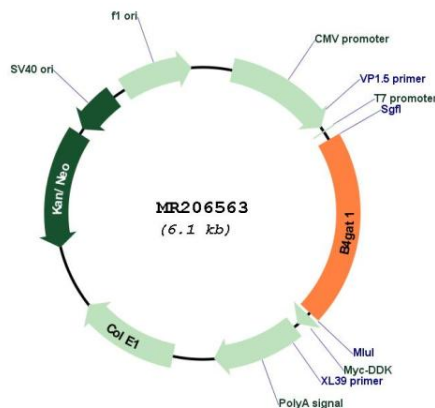
UniProt ID: [Q8BWP8](#)

Cytogenetics: 19 A

MW: 47.4 kDa

Gene Summary: Beta-1,4-glucuronyltransferase involved in O-mannosylation of alpha-dystroglycan (DAG1). Transfers a glucuronic acid (GlcA) residue onto a xylose (Xyl) acceptor to produce the glucuronyl-beta-1,4-xylose-beta disaccharide primer, which is further elongated by LARGE1, during synthesis of phosphorylated O-mannosyl glycan. Phosphorylated O-mannosyl glycan is a carbohydrate structure present in alpha-dystroglycan (DAG1), which is required for binding laminin G-like domain-containing extracellular proteins with high affinity (PubMed:25279699). Required for axon guidance; via its function in O-mannosylation of alpha-dystroglycan (DAG1) (PubMed:23217742).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR206563