

## Product datasheet for **MR204943**

### **B3gat1 (NM\_029792) Mouse Tagged ORF Clone**

#### Product data:

Product Type:	Expression Plasmids
Product Name:	B3gat1 (NM_029792) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	B3gat1
Synonyms:	0710007K08Rik; AI846286; GlcAT-P; Glcatp; Hnk1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>MR204943 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGGATCGCC**

ATGCCGAAGAGACGGGACATCCTTGCATTGTCCTCATCGTGCTTCCTGGACACTGCTCATCACCGTCT  
GGCACCAGAGCAGCCTCGCACCTCTGCTTGCTGTGCACAAGGATGAGGGAAGTGACCCCCGCATGAGGC  
ACCACCTGGTGGGACCCCTAGGGAGTACTGCATGTCCGACCGTGACATCGTGAAGTGGTGGCAGAGAG  
TACGTGTACACGAGGCCGCCACCCTGGTCCGACACGCTGCCACCATCCATGTGGTACGCCACCTACA  
GTAGACCGGTGCAGAAGGCAGAGCTGACGCGAATGGCCAACACTACTGCATGTGCCAACCTTCACTG  
GCTAGTGGTGGAGGATGCTCCACGAGGACGCCCTCACCGCGCGTTGCTGCGGACACTGGCCTCAAC  
TACACACACCTGCACGTAGAGACACCACGCAACTATAAGCTGCGAGGTGATGCCCGAGACCTCGCATCC  
CACGTGGCACCATGCAGCGCAACCTGGCACTGCGCTGGCTGCGGGAGACCTTCCCACGGAACCTACTCA  
GCCAGGCGTAGTGTACTTCGCGGATGATGACAACACGTACAGTCTGGAGCTCTTTGAAGAGATGCGCAGC  
ACAAGAAGGGTGTCCGTGTGGCTGTGGCCTTTGTTGGTGGCCTTCGGTATGAGGCCACCGGTGAATG  
GGCAGGAAAGTGGTTGGCTGGAAGACAGTCTTCGACCCACCAGCCCTTTGCAATAGACATGGCTGG  
ATTTGCTGTCAACCTCCGGCTCATCTTGCAGCGAAGTCAAGCCTACTTTAAGCTACGTGGTGTGAAGGGA  
GGCTACCAGGAAAGCAGTCTCCTTCGAGAACTTGCACCCTCAATGACCTGGAGCCAAGGCAGCAAAT  
GTACCAAGATCTTGGTCTGGCATACACGAACAGAGAAGCCAGTGTGTCATGAGGGGAAGAAGGGCTT  
CACCGACCCCTCAGTGGAGATC

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >MR204943 protein sequence  
Red=Cloning site Green=Tags(s)

MPKRRDILAIVLIVLPWTLITVWHQSSLAPLLAVHKDEGSDPRHEAPPGADPREYCMSDRDIVEVVRTE  
 YVYTRPPPWSDTLPTIHVVPTYSRPVQKAE LTRMANTLLHVPNLHNLVVEDAPRRTPL TARLLRDTGLN  
 YTHLHVETPRNYKLRGDARDPRIPRGTMQRNALRLWRETFPRNSTQPGVVYFADDNTYSLELFEEMRS  
 TRRVSVVPVAFVGLRYEAPRVNGAGKVVGWKT VFDPHRPF AIDMAGFAVNLRLILQRSQAYFKLRGVKG  
 GYQESSLLRELVTLNDLEPKAANCTKILVWHTRTEKPVLVNEGKKGFTDPSVEI

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\_029792

**ORF Size:** 1005 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\\_029792.1](#), [NP\\_084068.1](#)

**RefSeq Size:** 3474 bp

**RefSeq ORF:** 1005 bp

**Locus ID:** 76898

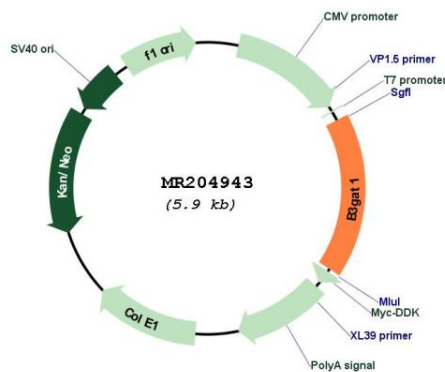
**UniProt ID:** [Q9CW73](#)

**Cytogenetics:** 9 A4

**MW:** 38.2 kDa

**Gene Summary:** Involved in the biosynthesis of L2/HNK-1 carbohydrate epitope on glycoproteins. Can also play a role in glycosaminoglycan biosynthesis. Substrates include asialo-orosomucoid (ASOR), asialo-fetuin, and asialo-neural cell adhesion molecule. Requires sphingomyelin for activity: stearyl-sphingomyelin was the most effective, followed by palmitoyl-sphingomyelin and lignoceroyl-sphingomyelin. Activity was demonstrated only for sphingomyelin with a saturated fatty acid and not for that with an unsaturated fatty acid, regardless of the length of the acyl group.[UniProtKB/Swiss-Prot Function]

### Product images:



Circular map for MR204943