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Product datasheet for RC210937

B3GALT1 (NM_020981) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	B3GALT1 (NM_020981) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	B3GALT1
Synonyms:	beta3Gal-T1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC210937 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGCTTCAAAGGTCTCCTGTTTGTATGTTTTGACAGTTGTGTGCTGGGCCAGCGCTCTCTGGTACTTGA
GTATAACTCGCCCTACTTCTTCTTACACTGGCTCCAAACCATTCAGCCACCTAACAGTTGCCAGGAAAAA
CTTCACCTTTGGCAACATAAGAACTCGACCTATCAACCCACATTCTTTTGAATTTCTTATCAACGAGCCC
AATAAATGTGAGAAAAACATTCCTTTTCTTGTTATCCTCATCAGCACCACTCACAAGGAATTTGATGCCC
GTCAGGCAATCAGAGAGACGTGGGGGGATGAGAACAACTTTAAGGGGATCAAGATAGCCACCCTGTTCCT
CCTGGGCAAGAATGCTGATCCTGTTCTCAATCAGATGGTGGAGCAAGAGAGCCAAATCTTCCATGATATC
ATCGTGGAGGACTTTATTGACTCCTACCATAACCTTACCCTCAAAACATTAATGGGGATGAGATGGGTGG
CCACTTTTTGTTCAAAAGCCAAGTATGTCATGAAAACAGACAGCGACATTTTTGTAAACATGGACAATCT
TATTTATAAATTACTGAAACCCTCCACCAAGCCACGAAGAAGGTATTTTACTGGCTATGTCATTAATGGA
GGACCGATTCGGGATGTCCGCAGTAAGTGGTATATGCCCAGGGATTTGTACCCAGACAGTAACTACCCAC
CTTTCTGTTCGGGGACTGGCTACATCTTTTCAGCCGATGTAGCTGAACTCATTTACAAGACCTCACTCCA
CACAAGGCTGCTTCACCTTGAAGACGTATATGTGGGACTGTGTCTTCGAAAGCTGGGCATACATCCTTTC
CAGAACAGTGGCTTCAATCACTGGAAAATGGCCTACAGTTTGTGTAGGTATCGCCGAGTTATCACTGTGC
ATCAGATCTCTCCAGAAGAAATGCACAGAATCTGGAATGACATGTCAAGCAAGAAACATCTCAGATGT

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

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Protein Sequence:

>RC210937 protein sequence
Red=Cloning site Green=Tags(s)

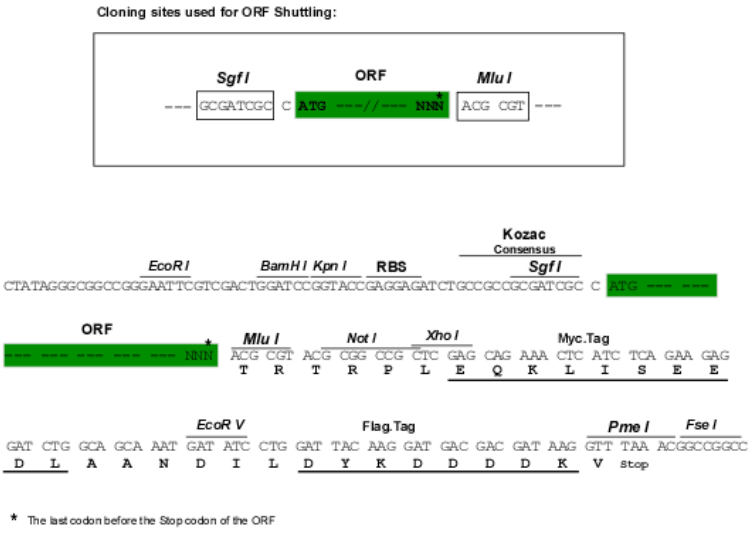
MASKVSCLYVLTVVCWASALWYLSITRPTSSYTGSKPFSHLTVARKNFTFGNIRTRPINPHSFEFLINEP
NKCEKNIPFLVILISTTHKEFDARQAIRETWGDENNFKGIKIATLFLLGKNADPVLNQMVEQESQIFHDI
IVEDFIDSYHNLTLKTLMGMRWVATFCSKAKYVMKTDSDIFVNMDNLIYKLLKPSTKPRRRYFTGYVING
GPIRDVRSKWYMPRDLYPDSNYPPFCSGTGYIFSADVAELIYKTSLHTRLLHLEDVYVGLCLRKLGIHPF
QNSGFNHWKMAYSLCRYRRVITVHQISPEEMHRIWNDMSSKKHLRC

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6371_d03.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_020981

ORF Size: 978 bp

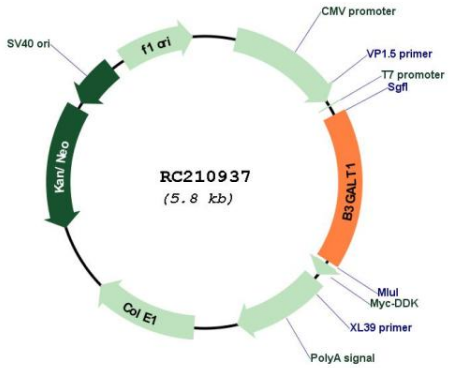
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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.

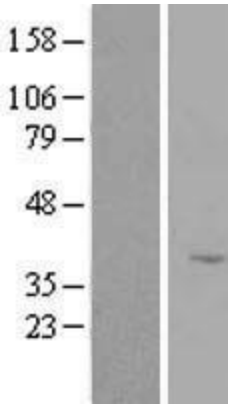
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

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_020981.4
RefSeq Size:	2168 bp
RefSeq ORF:	981 bp
Locus ID:	8708
UniProt ID:	Q9Y5Z6
Cytogenetics:	2q24.3
Protein Families:	Transmembrane
Protein Pathways:	Glycosphingolipid biosynthesis - lacto and neolacto series, Metabolic pathways
MW:	38 kDa
Gene Summary:	This gene is a member of the beta-1,3-galactosyltransferase (beta3GalT) gene family. This family encodes type II membrane-bound glycoproteins with diverse enzymatic functions using different donor substrates (UDP-galactose and UDP-N-acetylglucosamine) and different acceptor sugars (N-acetylglucosamine, galactose, N-acetylgalactosamine). The beta3GalT genes are distantly related to the Drosophila Brainiac gene and have the protein coding sequence contained in a single exon. The beta3GalT proteins also contain conserved sequences not found in the beta4GalT or alpha3GalT proteins. The carbohydrate chains synthesized by these enzymes are designated as type 1, whereas beta4GalT enzymes synthesize type 2 carbohydrate chains. The ratio of type 1:type 2 chains changes during embryogenesis. By sequence similarity, the beta3GalT genes fall into at least two groups: beta3GalT4 and 4 other beta3GalT genes (beta3GalT1-3, beta3GalT5). This gene is expressed exclusively in the brain. The encoded protein shows strict donor substrate specificity for UDP-galactose. [provided by RefSeq, Jul 2008]

Product images:



Circular map for RC210937



Western blot validation of overexpression lysate (Cat# [LY412159]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC210937 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).