OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for SC117169

Beta 1,4 galactosyltransferase 6 (B4GALT6) (NM_004775) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Beta 1,4 galactosyltransferase 6 (B4GALT6) (NM_004775) Human Untagged Clone
Tag:	Tag Free
Symbol:	Beta 1,4 galactosyltransferase 6
Synonyms:	B4Gal-T6; beta4Gal-T6
Mammalian Cell Selection:	None
Vector:	pCMV6-XL4
E. coli Selection:	Ampicillin (100 ug/mL)

Fully Sequenced ORF:

>OriGene ORF within SC117169 sequence for NM_004775 edited (data generated by NextGen Sequencing)

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ATGTCTGTGCTCAGGCGGATGATGCGGGTTTCCAATCGCTCTCTCCTCGCCTTCATCTTC
TTCTTCTCCCTCTCTTCGTCCTGTCTGTACTTCATCTATGTGGCCCCAGGCATCGCCAAC
ACATATCTCTTTATGGTACAAGCTCGAGGTATAATGTTGAGAGAAAATGTGAAAACAATA
GGTCATATGATCAGGCTGTACACAAATAAAAACAGTACGCTCAACGGTACAGATTATCCC
GAAGGCAATAATTCAAGTGATTATCTTGTTCAAACAACAACGTATCTCCCGGAAAACTTC
ACATACTCACCATACCTCCCCTGTCCAGAAAAGCTGCCTTATATGCGAGGATTCCTCAAT
GTCAATGTAAGCGAAGTCAGTTTTGATGAAATTCATCAACTCTTCTCCAAGGATTTAGAT
ATTGAGCCAGGGGGTCATTGGAGGCCAAAAGACTGTAAACCCAGATGGAAGGTGGCAGTT
CTCATTCCTTTCCGTAATCGCCATGAACATCTTCCAATTTTTTTCTTACATCTGATTCCA
ATGCTCCAGAAGCAGCGGCTGGAATTTGCGTTTTATGTCATTGAACAGACTGGCACACAA
CCTTTTAACCGTGCGATGCTTTTCAATGTGGGCTTCAAAGAGGCCATGAAAGACAGTGTC
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GGATGTGGAGAAATGCCACGTCATTTTGCTGCAAAGCTGGATAAATACATGTATATTCTT
CCATATAAAGAATTTTTTGGTGGTGTAAGTGGGCTGACAGTGGAACAATTTAGAAAGATC
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GTTCACTATGCTGGATATAATGTAACCAGACCAGAGGGAGACTTAGGAAAATACAAGTCA
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TCCAAGGAGCGTCAGTACATCGATGGACTGAACAATTTAATATATAGGCCAAAAATACTG
GTTGATAGGTTGTATACAAACATATCTGTAAACCTCATGCCAGAGTTAGCTCCAATCGAA
GACTATTAA
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Clone variation with respect to NM_004775.3
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5' Read Nucleotide Sequence:

>OriGene 5' read for NM_004775 unedited
GTTCGAATTTTGTAATACGACTCACTATAGGGGCGGCCGCGAATTCGCACGAGCCCTCTG
GCCTCCCATTCATTCCGTCCGCTCCCTCCCATTTCCTCTTTTCCGCTCGGGCCCTCTCCC
CAGAGCCTCCCCGCGCGGACCCCGCTGCAGTCTCGGGGTTCTCAGCACATTTATGGAAGT
TTAGGGCCTGGACAGTGGCCCCGAGTCCGGCCTGAGAGCGCAGCCTGGGCTGCTGGCAGG
GAAGAGGAAGATGTCTGTGCTCAGGCGGATGATGCGGGTTTCCAATCGCTCTCTCCTCGC
CTTCATCTTCTTCTTCTCCCTCTCTTCGTCCTGTCTGTACTTCATCTATGTGGCCCCAGG
CATCGCCAACACATATCTCTTTATGGTACAAGCTCGAGGTATAATGTTGAGAGAAAATGT
GAAAACAATAGGTCATATGATCAGGCTGTACACAAATAAAAACAGTACGCTCAACGGTAC
AGATTATCCCGAAGGCAATAATTCAAGTGATTATCTTGTTCAAACAACAACGTATCTCCC
GGAAAACTTCACATACTCACCATACCTCCCCTGTCCAGAAAAGCTGCCTTATATGCGAGG
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GGATTTAGATATTGAGCCAGGGGGTCATTGGAGGCCAAAAGACTGTAAACCCAGATGGGA
AGGTGGCAGTTCTCATTCCTTTCCGTAATCGCCATGAACATCTTCCAATTTTTTTCTTAC
ATCTGATTCCAATGCTCCAGAAGCAGCGGCTGGGAAATTTGCGTTTATGTCATTGAACAG
ACTGGCACACAACCTTTTAACCGTGCGATGCTTTTCAATGTGGGCTTNCANNAGAGCCAT
GAAGACAGTGTCTGGGACTGTGGTATCTTCCCACGATGTGGATCAT

3' Read Nucleotide Sequence:

>OriGene 3' read for NM_004775 unedited
ACTATGGCCCGGCGGCCGCAATCTAGGATCGAGTTTTTTTTTTTTTTTTTTGCATTTGCA
ATGTATTTGTTAATCTTTATGTAATAATTAATACAATGAAGATAAACGGGCACAGCTCTG
TCACTCTCACAGAAACATATTAAGTTCACTGTTTATAGGCAAAAATAATTTTAGGTCTAC
ACTAAAAAAGCAAAACAAACAAACAAAAAGCAAACGAGGTGGTTTTCACAGGATGACAAA
CTATATTTCAAAACTGAAAAAAAGCAAAATGTTTATATCTCACTCCTGAAACAAAAATTA
ACATCAGACTTAAGAAAATAAGGCAGATACTAGTAGTACTAAGTTTTCTTGAAACTGTAA
AATATATATAAAAATGAAAAGATACCGAATGTGGACAGCTCCACATTGATCAACAAATGT
TAACATTCTCAATCTCTTTCATTGACTTGAAAAACTATGTAATAGAAACAGAAAATGAAC
TAATACACAAATGAAGTACAAATATCATAATTTTCAGAAGGTTTGATTTTTCGAGTACCA
TAAAAAAACTGAAATATAAATATTTTGGAAATAGTTCTAAGAAATAAATATGAAAATATT
TTGGTTGGTATCATAACACAGAAGCTATCCATTTTCTCAAAGTGTAAGGATTCAATTATT
TTATGATTTAGCTTGCGGTCATTTGTGTTATCAATATTGCCATAAAAATGACACTTCAAA
ATAAAACTTACAATCTGAGATAAATAACCATAGCTCTTGTTTAGGTAAACAATCCTTGAG
GCGAATATTAATCACACGGTCCTCATATATAAAACCTCTATTGCTCACCACTGGTGGTGA
ACATTCACCTTTTACAACATCAATTTTTCGTTTAAAATTCGGAAAATTACGACATTTAAA
CATCTTTACAATCCCAATTCACAAAACAATATGGTTCGCCTTACTGGGAAAAATATTTTC
AAACCAA

Restriction Sites: NotI-NotI

ACCN: NM_004775

Insert Size: 4000 bp

OTI Disclaimer: Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

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_004775.2, NP_004766.1
RefSeq Size:	3830 bp
RefSeq ORF:	1149 bp
Locus ID:	9331
UniProt ID:	Q9UBX8
Cytogenetics:	18q12.1
Domains:	Galactosyl_T_2
Protein Families:	Transmembrane
Protein Pathways:	Metabolic pathways, Sphingolipid metabolism
Gene Summary:	This gene is one of seven beta-1,4-galactosyltransferase (beta4GalT) genes in human. They encode type II membrane-bound glycoproteins that appear to have exclusive specificity for the donor substrate UDP-galactose; all transfer galactose in a beta1,4 linkage to similar acceptor sugars: GlcNAc, Glc, and Xyl. Each beta4GalT has a distinct function in the biosynthesis of different glycoconjugates and saccharide structures. As type II membrane proteins, they have an N-terminal hydrophobic signal sequence that directs the protein to the Golgi apparatus and which then remains uncleaved to function as a transmembrane anchor. This gene produces multiple protein isoforms - some of which are predicted to lack the N-terminal hydrophobic signal sequence and transmembrane domain. By sequence similarity, the beta4GalTs form four groups: beta4GalT1 and beta4GalT2, beta4GalT3 and beta4GalT4, beta4GalT5 and beta4GalT6, and beta4GalT7. The canonical enzyme encoded by this gene is a lactosylceramide synthase important for glycolipid biosynthesis. [provided by RefSeq, Jan 2020]