

Product datasheet for **RG217876**

LARGE (LARGE1) (NM_004737) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	LARGE (LARGE1) (NM_004737) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	LARGE1
Synonyms:	LARGE; MDC1D; MDDGA6; MDDGB6
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



[View online »](#)

ORF Nucleotide Sequence:

>RG217876 representing NM_004737
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGCTGGGAATCTGCAGGGGAGACGGAAATTCCTGGCTGCCTCGTTGAGTCTTCTCTGCATCCCAGCCA
 TCACCTGGATTTACCTGTTTTCTGGGAGCTTCGAAGATGGAAAGCCCGTGTCTGTCCACCGCTGGAGTC
 CCAGGCACACAGCCCCAGGTACACGGCCTCCAGCCAGCGGGAGCGCGAGAGCCTGGAGGTGCGCATGCGC
 GAGGTGGAGGAGGAGAACC CGCCCTCCG CAGGCAGCTCAGCCTGGCCCAGGGCCGAGCCCCATCCCATC
 GCCGAGGCAACCACTCCAAGACCTACTCCATGGAGGAGGGCACTGGAGACAGCGAGAACCTTCGGGCTGG
 CATCGTGGCAGGCAACAGCTCCGAGTGTGGGCAGCAGCCGGTCTGGAGAAATGCGAGACAATCCACGTT
 GCTATTGTCTGCGCCGGATAACAATGCCAGCCGGGATGTCGTCACCCTGGTCAAATCCGTCCTGTTCCATA
 GACGGAACCTCTGCACTCCACCTTATTGCTGACTCCATTGCGGAGCAGATCCTGGCCAGCTCTTCCA
 GACCTGGATGGTCCCGCTGTGCGTGTGGACTTCTACAATGCAGACGAGCTCAAGTCTGAAGTTTCTGG
 ATCCCCAATAAACATTACTCTGGGATTTATGGTCTGATGAAGCTTGTCTGACCAAGACTCTTCTGCCA
 ACCTGGAGAGAGTCATCGTCTTGACACGGATATCACCTTTGCCACTGACATTGCAGAGCTGTGGGCTGT
 GTTCCACAAGTTCAAAGGTGAGCAAGTCCCTGGGCTTGGTGGAGAACCAGAGTGACTGGTACCTTGGAAAC
 CTGTGGAAAAATCACCGCCATGGCCAGCCCTTGGAGAGGCTACAACACAGGGGTGATCCTGTTACTTC
 TGGATAAGCTGCGGAAGATGAAATGGGAGCAGATGTGGAGGCTGACCGCAGAGAGGGAGCTATGGGCAT
 GCTCTCTACATCCTTAGCTGACCAGGATATTTCAATGCCGTATCAAACAAAACCCCTTCTTGTGTAC
 CAGCTCCCCTGCTTCTGGAATGTGCAGCTGTGAGACCACCCCGCTCCGAGCAGTGCTACAGAGACGTGT
 CTGATCTAAAGGTCATTCAGTGGAACTCCCCAAGAAGCTCCGGGTGAAGAACAAGCATGTGGAGTTTTT
 TCGCAACCTCTACCTGACCTTCTGGAGTATGACGGCAATCTTCTGAGGCGGGAACGTGTTGGCTGCCCC
 AGTGAGGCTGATGTCAACAGTGAACCTCCAGAAGCAGCTGTCTGAGCTGGACGAGGACGACCTGTGCT
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 TGCAGCAGACAGCACGGACGTCACCCTGGTCGCTCAGCTGTCCATGGACAGGCTCCAGATGCTGGAGGCC
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 GGGCCAGTTCTACCCCGTGAACCTGCTGCGCAACGTGGCCATGAAGCACATCAGCACTCCCTACATGTTT
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 ATCTTGCCAACACCAAGAAAGCAATGATTGTCCCGCGTTCGAGACACTGCGCTACCGGCTGTCTTCCC
 CAAGTCAAAGCGGAGTTGCTGTCAATGCTGGACATGGGGACCCTCTTACATTCAGGTACCACGCTCTGG
 ACGAAAGGCCACGCACCCACAACTTCGCCAAGTGGCGGACCGCCACCACGCCTTACCGGTTGAGTGGG
 AGGCCGATTTTGGCCGATGTTGTTGTGAGACGTGACTGCCCGGAGTACGACCGGAGGTTTGTAGGCTT
 TGGCTGGAACAAAGTGGCTCATATCATGGAGCTGGATGTGCAGGAGTATGAGTTTATTGTGCTGCCAAC
 GCCTACATGATCCACATGCCTCATGCCCCAGCTTCGACATTACCAAGTCCGTTCCAACAAGCAATACC
 GCATCTGTCTCAAACCCCTCAAGGAAGAGTTTCAGCAGGACATGTCCCGCGCTACGGCTTGTGCTCCCT
 GAAATATCTCACAGCCGAGAACAACAGC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >RG217876 representing NM_004737
 Red=Cloning site Green=Tags(s)

MLGICRGRRKFLAASLSLLCIPAITWIYLFSGSFEDGKPVSLSPLESQAHSPTYASSQRERESLEVRMR
 EVEEENRALRRQLSLAQGRAPSHRRGNHSTYSMEEGTGDSENLRAGIVAGNSSECGQPVVEKCEITHV
 AIVCAGYNASRDVVTLVKSVLFHRRNPLHFHLIADSLAEQILATLFTQWMPAVRVDFYNADLQSEVSW
 IPNKHYSGIYGLMKLVLTKTLPANLERVIVLDTDITFADIAELWAVFHFKGQQVGLGVENQSDWYLG
 LWKNHRPWPALGRGYNTGVILLLLDKLRKMKWEQMWRLTAERELMGMSTSLADQDIFNAVIKQNPFLVY
 QLPCFWNVQLSDHTRSEQCYRDVSDLKVIHWNSPKKLRVKNKHVEFFRNLYLTFLEYDGNLLRRELFGCP
 SEADVNSLENLQKQLSELDEDDLCYFRFRERFTVHRTHLYFLHYEYEPADSTDVTLVAQLSMDRLQMLEA
 ICKHWEGPISLALYLSDAEAQQFLRYAQGSEVLSMRHNVGYHIVYKEGQFYPVNLNRNVAMKHISTPYMF
 LSDIDFLPMYGLYEYLRKSVIQDLANTKKAMIVPAFETLRYRLSFPKSKAELLSMLDMGTLFTFRYHVW
 TKGHAPTNAKAWRTATTPYRVEWADFEPYVVVRRDCPEYDRRFVGFGWNVKVAHIMELDVQEYEFIVLPN
 AYMIIHMPHAPSFDITKFRSNKQYRICLTKLKEEFQQDMSRRYGF AALKYLT AENNS

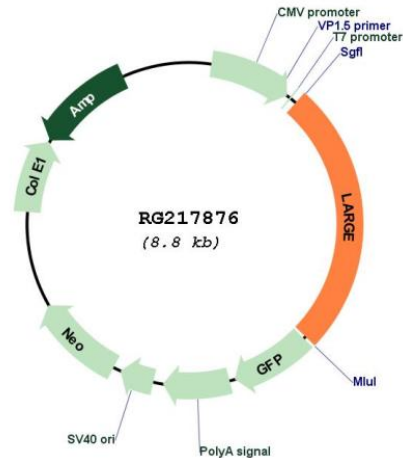
TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



Plasmid Map:


ACCN: NM_004737

ORF Size: 2268 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_004737.7](#)

RefSeq Size: 4194 bp

RefSeq ORF: 2271 bp

Locus ID: 9215

UniProt ID: [O95461](#)

Cytogenetics: 22q12.3

Domains: Glyco_transf_8

Protein Families: Druggable Genome, Transmembrane

Gene Summary: This gene encodes a member of the N-acetylglucosaminyltransferase gene family. It encodes a glycosyltransferase which participates in glycosylation of alpha-dystroglycan, and may carry out the synthesis of glycoprotein and glycosphingolipid sugar chains. It may also be involved in the addition of a repeated disaccharide unit. The protein encoded by this gene is the glycotransferase that adds the final xylose and glucuronic acid to alpha-dystroglycan and thereby allows alpha-dystroglycan to bind ligands including laminin 211 and neurexin. Mutations in this gene cause several forms of congenital muscular dystrophy characterized by cognitive disability and abnormal glycosylation of alpha-dystroglycan. Alternative splicing of this gene results in multiple transcript variants that encode the same protein. [provided by RefSeq, May 2018]