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Product datasheet for RC239315

LARGE2 (NM_001300722) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	LARGE2 (NM_001300722) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	LARGE2
Synonyms:	GYLTL1B; PP5656
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin

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ORF Nucleotide Sequence:

>RC239315 representing NM_001300722
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGCTGCCCCGAGGGCGCCCCCGGGCGCTGGGGGCCGCCGCGCTGTTGCTGCTGCTGCTGCTCGGAT
TCCTCCTGTTCGACGGGAGGCTGCGGAGAGCCGCCGCCCTCGACGGAGACCCGGGGGCCGGCCCCGGGGA
CCACAACCGCTCCGACTGCGGCCCGCAGCCGCCGCCGCCGCCCAAGTGCGAGCTCTTGCATGTGGCCATC
GTGTGTGCGGGGCATAACTCCAGCCGAGACGTCATCACCCTGGTGAAGTCCATGCTCTTCTACAGGAAAA
ATCCACTGCACCTCCACTTGGTGACTGACGCCGTGGCCAGAAACATCCTGGAGACGCTCTTCCACACATG
GATGGTGCCTGCTGTCCGTGTCAGCTTTTATCATGCCGACCAGCTCAAGCCCCAGGTCTCCTGGATCCCC
AACAAGCACTACTCCGGCCTCTATGGGCTAATGAAGCTGGTGCTGCCCAGTGCCTTGCCTGCTGAGCTGG
CCCGCGTCATTGTCCTGGACACGGATGTCACCTTCGCCTCTGACATCTCGGAGCTCTGGGCCCTCTTTGC
TCACTTTTCTGACACGCAGGCGATCGGTCTTGTGGAGAACCAGAGTGACTGGTACCTGGGCAACCTCTGG
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CACCTCACTGGCTGACCAGGACATCTTCAACGCTGTGATCAAGGAGCACCCGGGGCTAGTGCAGCGTCTG
CCTTGTGTCTGGAATGTGCAGCTGTCAGATCACACACTGGCCGAGCGCTGCTACTCTGAGGCGTCTGACC
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CCCCCACCTGGTGCTGAGCAGTTGCAGCAGGCCCTGGCACAACTGGACGAGGAAGACCCCTGCTTTGAGT
TCCGGCAGCAGCAGCTCACTGTGCACCGTGTGCATGTCACTTTCCTGCCCCATGAACCGCCACCCCCCCG
GCCTCACGATGTCACCCTTGTGGCCCAGCTGTCCATGGACCGGCTGCAGATGTTGGAAGCCCTGTGCAGG
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GCCGGCGCAAGGCAGCACTGGTGGTGCCGGCATTCGAGACCCTGCGCTACCGCTTCAGCTTCCCCCATTC
CAAGGTGGAGCTGTTGGCCTTGCTGGATGCGGGCACTCTCTACACCTTCAGGTACCACGAGTGGCCCCGA
GGCCACGCACCCACAGACTATGCCCGCTGGCGGGAGGCTCAGGCCCCGTACCGTGTGCAATGGGCGGCCA
ACTATGAACCCTACGTGGTGGTGCCACGAGACTGTCCCCGCTATGATCCTCGCTTTGTGGGCTTCGGCTG
GAACAAAGTGGCCCACATTGTGGAGCTGGATGCCCAGGAATATGAGCTCCTGGTGCTGCCCGAGGCCTTC
ACCATCCATCTGCCCCACGCTCCAAGCCTGGACATCTCCCGCTTCCGCTCCAGCCCCACCTATCGTGACT
GCCTCCAGGCCCTCAAGGACGAATTCCACCAGGACTTGTCCCGCCACCATGGGGCTGCTGCCCTCAAATA
CCTCCCAGCCCTGCAGCAGCCCCAGAGCCCTGCCCGAGGC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

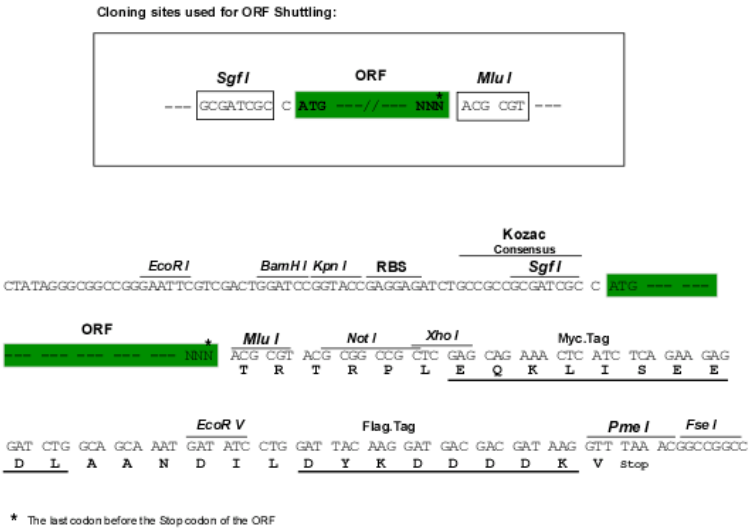
>RC239315 representing NM_001300722
Red=Cloning site Green=Tags(s)

MLPRGRPRALGAAALLLLLLLLGFLLFDGRLRRAAALDGDPGAGPGDHNRSDCGPQPPPPPKCELLHVAI
VCAGHNSSRDVITLVKSMLFYRKNPLHLHLVTDAVARNILETLFHTWMVPAVRVSFYHADQLKPQVSWIP
NKHYSGLYGLMKLVLPSALPAELARVIVLDTDVTFASDISELWALFAHFSDTQAIGLVENQSDWYLGNLW
KNHRPWPALGRGFNTGVILLRLDRLRQAGWEQMWRLTARRELLSLPATSLADQDIFNAVIKEHPGLVQRL
PCVWNVQLSDHTLAERCYSEASDLKVIHWNSPKKLRVKNKHVEFFRNFYLTFLEYDGNLLRRELFVCPSQ
PPPGAEQLQQALAQLDEEDPCFEFRQQQLTVHRVHVTFLPHEPPPPRPHDVTLVAQLSMDRLQMLEALCR
HWPGPMSLALYLTDAEAQQFLHFVEASPVLAARQDVAYHVVYREGPLYPVNQLRNVALAQALTPYVFLSD
IDFLPAYSLYDYLRASIEQLGLGSRRKAALVVPAFETLRYRFSFPHSKVELLALLDAGTLYTFRYHEWPR
GHAPTDYARWREAQAPYRVQWAANYEPYVVVPRDCPRYDPRFVGFGWNKVAHIVELDAQEYELLVLPEAF
TIHLPHAPSLDISRFRSSPTYRDCLQALKDEFHQDLSRHHGAAALKYLPALQQPQSPARG

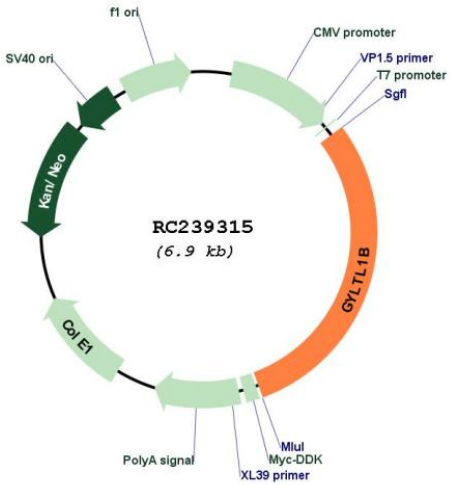
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN:	NM_001300722
ORF Size:	2070 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_001300722.2
RefSeq Size:	2473 bp

RefSeq ORF:	2073 bp
Locus ID:	120071
UniProt ID:	Q8N3Y3
Cytogenetics:	11p11.2
Protein Families:	Transmembrane
MW:	79.2 kDa
Gene Summary:	Bifunctional glycosyltransferase with both xylosyltransferase and beta-1,3-glucuronyltransferase activities involved in the biosynthesis of the phosphorylated O-mannosyl trisaccharide (N-acetylgalactosamine-beta-3-N-acetylglucosamine-beta-4-(phosphate-6-)mannose), a carbohydrate structure present in alpha-dystroglycan (DAG1). Phosphorylated O-mannosyl trisaccharid is required for binding laminin G-like domain-containing extracellular proteins with high affinity. Elongates the glucuronyl-beta-1,4-xylose-beta disaccharide primer structure by adding repeating units [-3-Xylose-alpha-1,3-GlcA-beta-1-] to produce a heteropolysaccharide. Has a higher activity toward alpha-dystroglycan than LARGE.[UniProtKB/Swiss-Prot Function]