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Product datasheet for RC201121

Alpha Dystroglycan (DAG1) (NM_004393) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Alpha Dystroglycan (DAG1) (NM_004393) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Alpha Dystroglycan
Synonyms:	156DAG; A3a; AGRNR; DAG; LGMDR16; MDDGA9; MDDGC7; MDDGC9
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

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ORF Nucleotide Sequence:

>RC201121 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGAGGATGTCTGTGGGCCTCTCGCTGCTGCTGCCCCTCTGGGGGAGGACCTTTCTCCTCCTGCTCTCTG
TGGTTATGGCTCAGTCCCACTGGCCCAGTGAACCCTCAGAGGCTGTCAGGGACTGGGAAAACCAGCTTGA
GGCATCCATGCACTCAGTGCTCTCAGACCTCCACGAGGCTGTTCCCACAGTGGTTGGCATTCCTGATGGC
ACGGCTGTCGTCGGGCGCTCATTTCGAGTGACCATTCCAACAGATTTGATTGCCTCCAGTGGAGATATCA
TCAAGGTATCAGCGGCAGGGAAGGAGGCTTTGCCATCTTGGCTGCACTGGGACTCACAGAGCCACACCCT
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CTGCACAGGATGCGGAGCTTCTCAGAAGTAGAGCTTCACAACATGAAATTAGTGCCGGTGGTGAATAACA
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TCTCTCCTGGAAGCTGGGCTGCTCCCTGAACCAGAACAGTGTGCCTGACATTCATGGTGTAGAGGCCCCT
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GTCACCTCCTCCCTATGTCCCACCT

AGCGGACCGACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC
TGGATTACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC201121 protein sequence
Red=Cloning site Green=Tags(s)

MRMSVGLSLLLPLWGRTFLLLLSVVMAQSHWPSEPSEAVRDWENQLEASMHSVLSDLHEAVPTVVGIPDG
TAVVGRSFRVTIPTDLIASSGDIIKVSAAGKEALPSWLHWDSQSHTLEGLPLDTDKGVHYISVSATRLGA
NGSHIPQTSSVFSIEVYPEDHSELQSVRTASPDPGEVVSSACAADEPVTVLTVILDADLTKMTPKQRIDL
LHRMRSFSEVELHNMKLVPVVNNRLFDMSAFMAGPGNAKKVVENGALLSWKLGCSLNQNSVPDIHGVEAP
AREGAMSAQLGYPVVGWHIANKKPPLPKRVRRQIHATPTPVTAIGPPTTAIQEPPSRIVPTPTSPAIAPP
TETMAPPVRDPVPGKPTVTIRTRGAIIQTPTLGPIQPTRVSEAGTTVPGQIRPTMTIPGYVEPTAVATPP
TTTTKKPRVSTPKPATPSTDSTTTTTRRPTKKPRTPRPVPRVTTKVSITRLETASPPTRIRTTTSGVPRG
GEPNQRPELKNHIDRVDAWVGTYFEVKIPSDTFYDHEDTTTDKLKLTLKLREQQLVGEKSWVQFNSNSQL
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KATSITVTGSGSCRHLQFIPVVPPRRVPSEAPPTEVPDRDPEKSSEDDVYLHTVIPAVVVAAILLIAGII
AMICYRKKRKGKLTLEDQATFIKKGVPIIFADELDDSKPPPSSSMPLILQEEKAPLPPPEYPNQSVPETT
PLNQDTMGEYTPLRDEDPNAPPYQPPPPFTAPMEGKGSRPKNMTPYRSPPPYVPP

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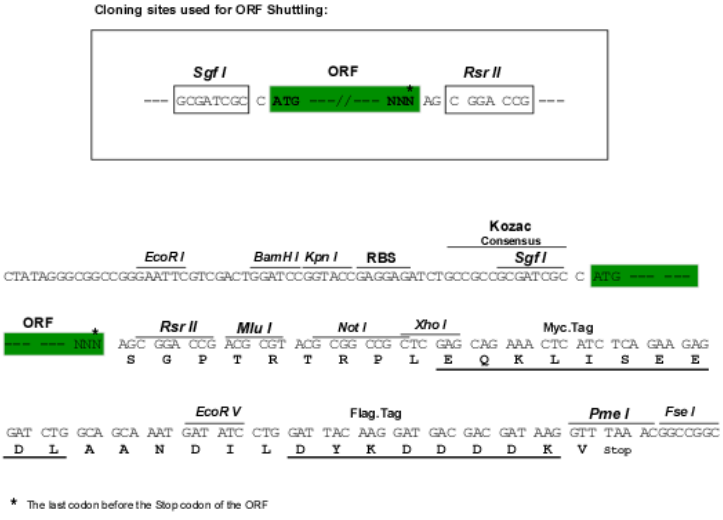
Restriction Sites: SgfI-RsrII

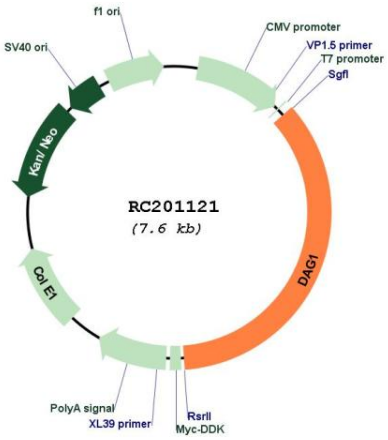
Cloning Scheme:



ACCN: NM_004393

ORF Size:	2685 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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	NM_004393.6
RefSeq Size:	5543 bp
RefSeq ORF:	2688 bp
Locus ID:	1605
UniProt ID:	Q14118
Cytogenetics:	3p21.31
Domains:	CADG
Protein Families:	Druggable Genome, Secreted Protein, Transmembrane
Protein Pathways:	Arrhythmogenic right ventricular cardiomyopathy (ARVC), Dilated cardiomyopathy, ECM-receptor interaction, Hypertrophic cardiomyopathy (HCM), Viral myocarditis
MW:	97.5 kDa
Gene Summary:	This gene encodes dystroglycan, a central component of dystrophin-glycoprotein complex that links the extracellular matrix and the cytoskeleton in the skeletal muscle. The encoded preproprotein undergoes O- and N-glycosylation, and proteolytic processing to generate alpha and beta subunits. Certain mutations in this gene are known to cause distinct forms of muscular dystrophy. Alternative splicing results in multiple transcript variants, all encoding the same protein. [provided by RefSeq, Nov 2015]

Product images:



Circular map for RC201121