

Product datasheet for **RC220475**

Dystrophin (DMD) (NM_004017) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Dystrophin (DMD) (NM_004017) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Dystrophin
Synonyms:	BMD; CMD3B; DXS142; DXS164; DXS206; DXS230; DXS239; DXS268; DXS269; DXS270; DXS272; MRX85
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC220475 representing NM_004017
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGAGGGAACAGCTCAAAGGCCACGAGACTCAAACAATTGCTGGGACCATCCAAAATGACAGAGCTCT
 ACCAGTCTTTAGCTGACCTGAATAATGTGAGATTCTCAGCTTATAGGACTGCCATGAAACTCCGAAGACT
 GCAGAAGGCCCTTTGCTTGGATCTCTTGAAGCTGTGAGCTGCATGTGATGCCCTTGGACCAGCACAACCTC
 AAGCAAAATGACCAGCCCATGGATATCCTGCAGATTATTAATTGTTTGACCACTATTTATGACCGCTGG
 AGCAAGAGCACAACAATTTGGTCAACGTCCCTCTGCGTGGATATGTGTCTGAAGTGGCTGCTGAATGT
 TTATGATACGGGACGAACAGGGAGGATCCGTGTCTGTCTTTAAAAGTGGCATCATTTCCCTGTGTAAA
 GCACATTTGGAAGACAAGTACAGATACCTTTTCAAGCAAGTGGCAAGTTCAACAGGATTTTGTGACCAGC
 GCAGGCTGGGCCCTCTTCTGCATGATTCTATCCAATTTCAAGACAGTTGGGTGAAGTTGCATCCTTTGG
 GGGCAGTAACATTGAGCCAAGTGTCCGGAGCTGCTTCCAATTTGTAATAATAAGCCAGAGATCGAAGCG
 GCCCTCTTCTAGACTGGATGAGACTGGAACCCAGTCCATGGTGTGGCTGCCCGTCTGCACAGAGTGG
 CTGCTGCAGAAACTGCCAAGCATCAGGCCAAATGTAACATCTGCAAGAGTGTCCAATCATTGGATTGAG
 GTACAGGAGTCTAAAGCACTTTAATTATGACATCTGCCAAAGCTGCTTTTTTCTGGTTCGAGTTGCAAAA
 GGCCATAAAATGCACTATCCCATGGTGGAAATTTGCACTCCGACTACATCAGGAGAAGATGTTTCGAGACT
 TTGCCAAGGTAATAAAAAAAATTTTGAACAAAAGGATTTTTCGCAAGCATCCCCGAATGGGCTACCT
 GCCAGTGCAGACTGTCTTAGAGGGGACAAATGGAAACGCCCTGCCTCGTCCCCTCAGCTTTCACACGAT
 GATACTCATTACGCATTGAACATTATGCTAGCAGGCTAGCAGAAATGGAAAACAGCAATGGATCCTTATC
 TAAATGATAGCATCTCTCTAATGAGAGCATAGATGAACATTTGTTAATCCAGCACTTACTGCCAAAG
 TTTGAACAGGACTCCCCCTGAGCCAGCTCGTAGTCCCTGCCAGATCTTGATTTCCCTTAGAGAGTGAG
 GAAAGAGGGGAGCTAGAGAGAATCCTAGCAGATCTTGGAGAAAGAAAACAGGAATCTGCAAGCAGAATATG
 ACCGTCTAAAGCAGCAGCACGAACATAAAGGCCTGTCCCACTGCCGTCCCCTCCTGAAATGATGCCAC
 CTCTCCCAGAGTCCCCGGGATGCTGAGCTCATTGCTGAGGCCAAGCTACTGCGTCAACACAAAGGCCGC
 CTGGAAGCCAGGATGCAAACTCCTGGAAGACCACAATAACAGCTGGAGTACAGTTACACAGGCTAAGGC
 AGCTGCTGGAGCAACCCAGGCAGAGGCCAAAGTGAATGGCACACGGTGTCTCTCTCTACCTCTCT
 ACAGAGGTCGACAGCAGTACGCTATGCTGCTCCGAGTGGTGGCAGTCAAACCTCGGACTCCATGGGT
 GAGGAAGATCTTCTCAGTCTCCCAGGACACAAGCACAGGGTTAGAGGAGGTGATGGAGCAACTCAACA
 ACTCTTCCCTAGTTCAAGAGGAAGAAATACCCCTGAAAAGCCAATGAGAGAGGACACAATG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC220475 representing NM_004017
 Red=Cloning site Green=Tags(s)

MREQLKGHETQTTCDWHPKMTLEYQSLADLNNVRFSAVRTAMKLRRLQKALCLDLLSLSAACDALDQHNL
 KQNDQPMQDILQIINCLTTIYDRLEQEHNNLVNVPFCVDMCLNWLNVYDTGRTGRIRVLSFKTGIISLCK
 AHLEDKYRYLQKQVASTGFCDQRRLLGLLHDSIQIPRQLGEVASFSGSNIEPSVRSFQFANNKPEIEA
 ALFLDWMRLEPQSMVWLPVLRVAAAETAKHQAKCNICKECPIIGFRYRSLKHFNYDICQSCFFSGRVAK
 GHKMHPMVEYCTPTTSGEDVRFDAKVLKNKFRKRYFAKHPRMGYLPVQTVLEGNMTPASSQLSHD
 DTHSRIEHYASRLAEMENSNGSYLNDISPNESIDDEHLIIQHYCQSLNQDSPLSQPRSPAQILISLESE
 ERGELERILADLEEENRNLQAEYDRLLKQHEHKL SPLSPPEMPTSPQSPRDAELIAEAKLLRQHKGR
 LEARMQILEDHKNQLESQHLRLRQLLEQPQAEAKVNGTTVSSPSTSLQRSDDSSQPMMLLRVVGQSSTSDSMG
 EEDLLSPPQDTSTGLEEVMEQLNNSFPSSRGRNTPGKPMREDTM

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk8069_d02.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_004017

ORF Size: 1812 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_004017.3](#)

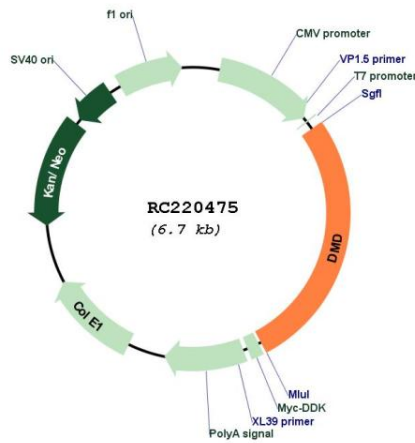
RefSeq Size: 4584 bp

RefSeq ORF: 1815 bp

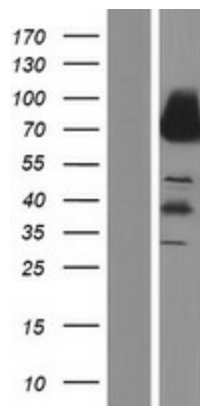
Locus ID: 1756

UniProt ID: [P11532](#)
Cytogenetics: Xp21.2-p21.1
Domains: ZnF_ZZ
Protein Pathways: Arrhythmogenic right ventricular cardiomyopathy (ARVC), Dilated cardiomyopathy, Hypertrophic cardiomyopathy (HCM), Viral myocarditis
MW: 68.8 kDa
Gene Summary: This gene spans a genomic range of greater than 2 Mb and encodes a large protein containing an N-terminal actin-binding domain and multiple spectrin repeats. The encoded protein forms a component of the dystrophin-glycoprotein complex (DGC), which bridges the inner cytoskeleton and the extracellular matrix. Deletions, duplications, and point mutations at this gene locus may cause Duchenne muscular dystrophy (DMD), Becker muscular dystrophy (BMD), or cardiomyopathy. Alternative promoter usage and alternative splicing result in numerous distinct transcript variants and protein isoforms for this gene. [provided by RefSeq, Dec 2016]

Product images:



Circular map for RC220475



Western blot validation of overexpression lysate (Cat# [LY418277]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC220475 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).