

Product datasheet for RC220575

Dystrophin (DMD) (NM_004022) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Dystrophin (DMD) (NM_004022) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	DMD
Synonyms:	BMD; CMD3B; DXS142; DXS164; DXS206; DXS230; DXS239; DXS268; DXS269; DXS270; DXS272; MRX85
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin
ORF Nucleotide Sequence:	>RC220575 representing NM_004022 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGCCATCTTCCTTGATGTTGGAGGTACCTGCTCTGGCAGATTTCAACCGGGCTTGGACAGAACTTACCG
ACTGGCTTTCTGCTTGATCAAGTTATAAAATCACAGAGGGTATGGTGGGTGACCTTGAGGATATCAA
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ATTACCGTCCCAAAATTTGAAAAACAAGACCAGCAATCAAGAGGCTAGAACAATCATTACGGATCGAA
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CGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCCTCATTGACTCTCTCCAAGATC
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ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC220575 representing NM_004022
 Red=Cloning site Green=Tags(s)

MPSSLMLEVPALADFNRAWTEL TDWLSLLDQVIKSQRVMVGDLEDINEMIIKQKATMQDLEQRRPQLEEL
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 AKLESWKEGPYTVDAIQKKITETKQLAKDLRQWQTNVDVANDLALKLLRDYSADDTRKVMHITENINASW
 RSIHKRVSEREAAL EETHRLLQQFPLDLEKFLAWL TEAETTANVLQDATRKERLLEDKGVKELMKQWQD
 LQGEIEAHTDVYHNL DENSQKILRSLEGSDDAVLLQRRLDNMNFKWSELRKKSLNIRSHLEASSDQWKRL
 HLSLQELLVWLQKDDDEL SRQAPIGGDFPAVQKQNDVHRAFKRELKTKPEVIMSTLETVRIFL TEQPLEG
 LEKLYQEPRELPEERAQNVTRLLRKQAEVNTWEKLNLSADWQRKIDETLERLQELQEATDELDKL
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 NTRWKLQVAVEDRVRQLHEAHRDFGPASQHF LSTSVQGPWERAISPNKVPYYINHETQTTCDWHPKMT
 LYQSLADLNNVRF SAYRTAMKLRRLQKALCLDLLSL SAACDALDQHNLKQNDQPMIDLQIINCLTTIYDR
 LEQEHNLLVNVPLCVDMLNWLNVYDTGRTGRIRVLSFKTGIISLCKAHLEDKYRYL FKQVASSTGFCD
 QRRLGLLLHDSIQIPRQLGEVASFGGSNI EPSVRSQFQFANNKPEIEAALFLDWMRLEPQSMVWLPVLR
 VAAAEAKHQAKCNICKECPIIGFRYRSLKHFNYD ICQSCFFSGRVAKGHMHPMVEYCTPTTSGEDVR
 DFAKVLKKNKFRKRYFAKHPRMGYLPVQTVLEGDNMETPASSQLSHDDTHSRIEHYASRLAEMENSGS
 YLNDISIPNESIDDEHLLIQHYCQLNQDSPLSQPRSPAQILISLESEERGELERILADLEEENRNLQAE
 YDRLKQQHEHKGLSPLSPPEMPTSPQSPRDAELIAEAKLLRQHKGRLEARMQILEDHNKQLESQHLRL
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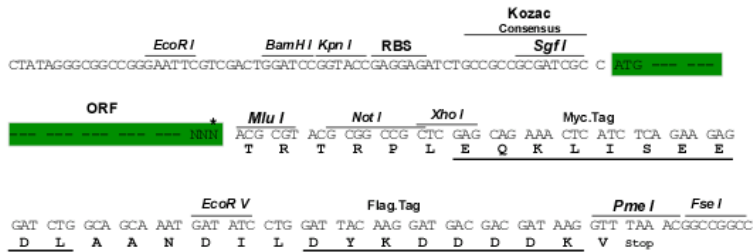
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfl-MluI

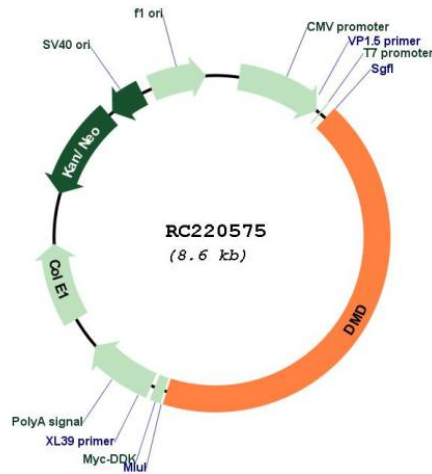
Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

Plasmid Map:



ACCN: NM_004022

ORF Size: 3690 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_004022.2](#), [NP_004013.1](#)

RefSeq Size: 7339 bp

RefSeq ORF: 3693 bp

Locus ID: 1756

UniProt ID: [P11532](#)

Cytogenetics:	Xp21.2-p21.1
Protein Pathways:	Arrhythmogenic right ventricular cardiomyopathy (ARVC), Dilated cardiomyopathy, Hypertrophic cardiomyopathy (HCM), Viral myocarditis
MW:	141.7 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]