

Product datasheet for RC211508

Dystrophin (DMD) (NM_004023) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Dystrophin (DMD) (NM_004023) 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:	>RC211508 representing NM_004023 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCCGCATCGCC

ATGCCATCTTCCTTGATGTTGGAGGTACCTGCTCTGGCAGATTTCAACCGGGCTTGGACAGAACTTACCG
ACTGGCTTTCTGCTTGATCAAGTTATAAAATCACAGAGGGTATGGTGGGTGACCTTGAGGATATCAA
CGAGATGATCATCAAGCAGAAGGCAACAATGCAGGATTTGGAACAGAGGCGTCCCAGTTGGAAGAACTC
ATTACCGTCCCAAAATTTGAAAAACAAGACCAGCAATCAAGAGGCTAGAACAATCATTACGGATCGAA
TTGAAAGAATTCAGAATCAGTGGATGAAGTACAAGAACACCTTCAGAACCGGAGGCAACAGTTGAATGA
AATGTTAAAGGATTCAACACAATGGCTGGAAGCTAAGGAAGAAGCTGAGCAGGCTTAGGACAGGCCAGA
GCCAAGCTTGAGTCATGGAAGGAGGGTCCCTATACAGTAGATGCAATCCAAAAGAAAATCACAGAAACCA
AGCAGTTGGCCAAAGACCTCCGCCAGTGGCAGACAAATGTAGATGTGGCAAATGACTTGGCCCTGAAACT
TCTCCGGGATTATTCTGCAGATGATACCAGAAAAGTCCACATGATAACAGAGAATATCAATGCCTCTTGG
AGAAGCATTATAAAAGGGTGAGTGAGCGAGAGGCTGCTTTGGAAGAACTCATAGATTACTGCAACAGT
TCCCCCTGGACCTGAAAAGTTTCTTGCCTGGCTTACAGAAGCTGAAACAACTGCCAATGTCTACAGGA
TGCTACCCGTAAAGAAAGGCTCCTAGAAGACTCCAAGGGAGTAAAAGAGCTGATGAAACAATGGCAAGAC
CTCCAAGGTGAAATTGAAGCTCACACAGATGTTTATCACAACTGGATGAAAACAGCCAAAAAATCCTGA
GATCCCTGGAAGGTTCCGATGATGCAGTCTGTTACAAAGACGTTTGATAACATGAACTTCAAGTGGAG
TGAATTCGGAAGAAAGTCTCTCAACATTAGGTCCATTTGGAAGCCAGTTCTGACCAGTGAAGCGTCTG
CACCTTTCTCTGCAGGAATTCTGGTGTGGCTACAGCTGAAAGATGATGAATTAAGCCGGCAGGCACCTA
TTGGAGGCGACTTCCAGCAGTTCAGAAGCAGAACGATGTACATAGGGCCTTCAAGAGGGAATTGAAAAC
TAAAGAACCTGTAATCATGAGTACTCTTGGAGCTGTACGAATATTTCTGACAGAGCAGCCTTTGGAAGGA
CTAGAGAACTCTACCAGGAGCCAGAGAGCTGCCTCCTGAGGAGAGAGCCAGAATGTCACTCGGCTTC
TACGAAAGCAGGCTGAGGAGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGCAGAG
AAAAATAGATGAGACCCTTGAAAGACTCCAGGAACCTCAAGAGGCCACGGATGAGCTGGACCTCAAGCTG



[View online »](#)

CGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCCTCATTGACTCTCTCCAAGATC
ACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGCCTCTGAAAGAGAACGTGAGCCACGTCAATGA
CCTTGCTCGCCAGCTTACCACCTTGGGCATTGAGTCTCACCGTATAACCTCAGCACTCTGGAAGACCTG
AACACCAGATGGAAGCTTCTGCAGGTGGCCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCACAGGG
ACTTTGGTCCAGCATCTCAGCACTTTCTTCCAGTCTGTCCAGGGTCCCTGGGAGAGGCCATCTCGCC
AAACAAAGTGCCCTACTATATCAACCACGAGACTCAAACAACCTGCTGGGACCATCCCAAAATGACAGAG
CTCTACCAGTCTTTAGCTGACCTGAATAATGTGAGATTTCAGCTTATAGGACTGCCATGAAACTCCGAA
GACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCCTGTGAGCTGCATGTGATGCCTTGGACCAGCACAA
CCTCAAGCAAAATGACCAGCCATGGATATCCTGCAGATTATTAATTGTTTGACCACTATTTATGACCGC
CTGGAGCAAGAGCACAACAATTTGGTCAACGTCCCTCTCTGCGTGGATATGTGTCTGAACTGGTCTGTA
ATGTTTATGATACGGGACGAACAGGGAGGATCCGTGTCCTGTCTTTTAAACTGGCATCATTTCCCTGTG
TAAAGCACATTTGGAAGACAAGTACAGTACCTTTTCAAGCAAGTGGCAAGTTCAACAGGATTTTGTGAC
CAGCGCAGGCTGGGCTCCTTCTGCATGATTCTATCCAAATCCAAGACAGTTGGTGAAGTTGCATCCT
TTGGGGCAGTAACATTGAGCAAGTGTCCGGAGCTGCTTCCAATTTGCTAATAAAGCCAGAGATCGA
AGCGGCCCTCTTCTAGACTGGATGAGACTGGAACCCAGTCCATGGTGTGGCTGCCCGTCTGCACAGA
GTGGCTGCTGCAGAACTGCCAAGCATCAGGCCAAATGTAACATCTGCAAGAGTGTCCAATCATTGGAT
TCAGGTACAGGAGTCTAAAGCACTTTAATTATGACATCTGCCAAAGCTGCTTTTTTCTGGTCGAGTTGC
AAAAGGCCATAAAATGCACTATCCCATGGTGGAAATATTGCACTCCGACTACATCAGGAGAAGATGTTTGA
GACTTTGCCAAGTACTAAAAACAATTTTGAACCAAAAGGTATTTTGGCAAGCATCCCCGATGGGCT
ACCTGCCAGTGCAGACTGTCTTAGAGGGGGACAACATGGAACGAATCTGCAAGCAGAATATGACCGTCT
AAAGCAGCAGCACGAACATAAAGGCCTGTCCCACTGCCGTCCCCTCTGAAATGATGCCACCTCTCC
CAGAGTCCCCGGGATGCTGAGCTCATTGCTGAGGCCAAGCTACTGCGTCAACACAAGGCCCGCTGGAAG
CCAGGATGCAAACTCCTGGAAGACCACAATAAACAGCTGGAGTCACAGTTACACAGGCTAAGGCAGCTGCT
GGAGCAACCCAGGCAGAGGCCAAAGTGAATGGCACAACGGTGTCTCTCCTTCTACCTCTACAGAGG
TCCGACAGCAGTCAGCCTATGCTGCTCCGAGTGGTTGGCAGTCAAACCTCGGACTCCATGGGTGAGGAAG
ATCTTCTCAGTCTCCCCAGGACACAAGCACAGGGTTAGAGGAGGTGATGGAGCAACTCAACAACCTCCT
CCCTAGTTCAAGAGGACACAATGTAGGAAGTCTTTTCCACATGGCAGATGATTTGGGCAGAGCGATGGAG
TCCTTAGTATCAGTCATGACAGATGAAGAAGGAGCAGAA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

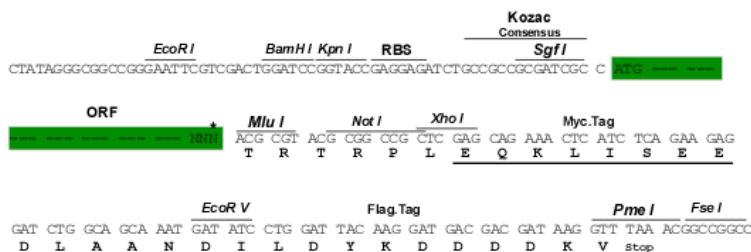
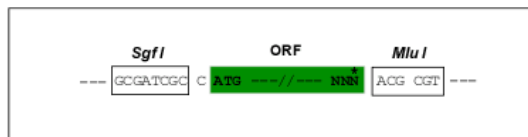
Protein Sequence: >RC211508 representing NM_004023
 Red=Cloning site Green=Tags(s)

MPSSLMLEVPALADFNRAWTEL TDWLSLLDQVIKSQRVMVGDLEDINEMIIKQKATMQDLEQRRPQLEEL
 ITAAQNLIKNTSNQEARTIITDRIERIQNQWDEVQEHLQNRQQLEMLKDISTQWLEAKEEAEQVLGQAR
 AKLESWKEGPYVDIAIQKKITETKQLAKDLRQWQTNVDVANDLALKLLRDYSADDTRKVVHMITENINASW
 RSIHKRVSEREAAL EETHRLLQQFPLDLEKFLAWL TEAETTANVLQDATRKERLLEDKSGVKELMKQWQD
 LQGEIEAHTDVYHNL DENSQKILRSLEGSDDAVLLQRRLDNMNFKWSSELRKKSLNIRSHLEASSDQWKRL
 HLSLQELLVWLQLKDEL SRQAPIGGDFPAVQKQNDVHRAFKRELKTKPEVIMSTLETVRIFLTEQPLEG
 LEKLYQEPRELPEERAQNVTRLLRKQAEVNTWEKLNLSADWQRKIDETLERLQELQEATDEL DLK
 RQAEVIKGSWQPVGDLL IDSLQDHLEKVKALRGEIAPLKENVSHVNDLARQLTTLGIQLSPYNLSTLEDL
 NTRWKLQVAVEDRVRQLHEHRDFGPASQHF LSTSVQGPWERAISPKNVPYYINHETQTTCDWHPKMT
 LYQSLADLNNVRF SAYRTAMKLRRLQKALCLDLLSL SAACDALDQHNLKQNDQPM DILQIINCLTTIYDR
 LEQEHNNLVNVP LCVDMCLNWL NNYDTGRTGRIRVLSFKTGIISLCKAHLEDKYRYL FKQVASSTGFC
 QRRLGLLLHDSIQIPRQLGEVASFGGSNI EPSVRSFCQFANNKPEIEAALFLDWMRLEPQSMVWLPVLR
 VAAAEAKHQAKCNICKECPIIGFRYRSLKHFNYD ICQSCFFSGRVAKGHKMHPMVEYCTPTTSGEDVR
 DFAKVLKKNKFRKRYFAKHPRMGYLPVQTVLEGDNMETNLQAEYDRLKQQHEHGLSPLSPPEMPTSP
 QSPRDAELIAEAKLLRQHKGRLEARMQILEDHNLKQLESQ LHRRLQLLEQPQAEAKVNGTTVSSPSTSLQR
 SDSSQPMLLRVVGSTSDSMGEEDLLSPPQDTSTGLEEVMEQLNNSFPSSRGNVGS LFMADDLGRAME
 SLVSVMTDEEGAE

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

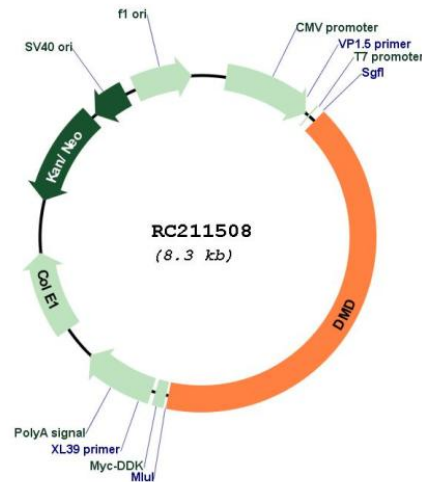
Restriction Sites: SgfI-MluI
 Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

Plasmid Map:



ACCN: NM_004023

ORF Size: 3399 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_004023.2](#), [NP_004014.1](#)

RefSeq Size: 7048 bp

RefSeq ORF: 3402 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:	130.8 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]