

Product datasheet for **SC309980**

Dystrophin (DMD) (NM_004020) Human Untagged Clone

Product data:

Product Type: Expression Plasmids
Product Name: Dystrophin (DMD) (NM_004020) Human Untagged Clone
Tag: Tag Free
Symbol: DMD
Synonyms: BMD; CMD3B; DXS142; DXS164; DXS206; DXS230; DXS239; DXS268; DXS269; DXS270; DXS272; MRX85

Vector: pCMV6 series

Fully Sequenced ORF: >NCBI ORF sequence for NM_004020, the custom clone sequence may differ by one or more nucleotides

```
ATGCCATCTTCCTTGATGTTGGAGGTACCTGCTCTGCCAGATTTCAACCGGGCTTGACA  
GAACTTACCGACTGGCTTCTCTGCTTGATCAAGTTATAAAATCACAGAGGGTGATGGTG  
GGTGACCTTGAGGATATCAACGAGATGATCATCAAGCAGAAGGCAACAATGCAGGATTTG  
GAACAGAGGCGTCCCAGTTGGAAGAACTATTACCGCTGCCAAAATTTGAAAAACAAG  
ACCAGCAATCAAGAGGCTAGAACAATCATTACGGATCGAATTGAAAGAATTCAGAATCAG  
TGGGATGAAGTACAAGAACCTTCAGAACCGGAGGCAACAGTTGAATGAAATGTTAAAG  
GATTCAACACAATGGCTGGAAGCTAAGGAAGAAGCTGAGCAGGTCTTAGGACAGGCCAGA  
GCCAAGCTTGAGTCATGGAAGGAGGGTCCCTATACAGTAGATGCAATCCAAAAGAAAATC  
ACAGAAAACAAGCAGTTGGCCAAAGACCTCCGCCAGTGGCAGACAAATGTAGATGTGGCA  
AATGACTTGGCCCTGAAACTTCTCCGGGATTATTCTGCAGATGATACCAGAAAAGTCCAC  
ATGATAACAGAGAATATCAATGCCTCTTGAGAAGCATTCAAAAAGGGTGAGTGAGCGA  
GAGGCTGCTTTGGAAGAACTCATAGATTACTGCAACAGTTCCCCTGGACCTGGAAAAG  
TTTCTTGCTGGCTTACAGAAGCTGAAACAACCTGCCAATGTCCTACAGGATGCTACCCGT  
AAGGAAAGGCTCCTAGAAGACTCCAAGGGAGTAAAAGAGCTGATGAAACAATGGCAAGAC  
CTCCAAGGTGAAATTGAAGCTCACACAGATGTTTATCACAACTGGATGAAAACAGCCAA  
AAAATCCTGAGATCCCTGGAAGGTTCCGATGATGCAGTCTGTTACAAAGACGTTTGGAT  
AACATGAACTTCAAGTGGAGTGAACCTCGGAAAAGTCTCTCAACATTAGTCCCATTG  
GAAGCCAGTTCTGACCAGTGAAGCGTCTGCACCTTTCTCTGCAGGAACTTCTGGTGTGG  
CTACAGCTGAAAGATGATGAATTAAGCCGGCAGGCACCTATTGGAGGCGACTTTCAGCA  
GTTCAGAAGCAGAACGATGTACATAGGGCCTTCAAGAGGGAATTGAAAACCTAAAGAACCT  
GTAATCATGAGTACTCTTGAGACTGTACGAATATTTCTGCAGAGCAGCCTTTGGAAGGA  
CTAGAGAACTCTACCAGGAGCCAGAGAGCTGCCTCCTGAGGAGAGAGCCAGAATGTC  
ACTCGGCTTCTACGAAAGCAGGCTGAGGAGGTCAATACTGAGTGGGAAAAATTGAACCTG  
CACTCCGCTGACTGGCAGAGAAAAATAGATGAGACCCTTGAAGACTCCAGGAACCTCAA  
GAGGCCACGGATGAGCTGGACCTCAAGCTGCGCCAAGCTGAGGTGATCAAGGGATCCTGG  
CAGCCCGTGGGGATCTCCTCATTGACTCTCTCAAGATCACCTCGAGAAAGTCAAGGCA  
CTTCGAGGAGAAAATTGCGCCTCTGAAAGAGAAGCTGAGCCACGTCAATGACCTTGCTCGC  
CAGCTTACCACCTTGGGCATTGAGTCTCACCGTATAACCTCAGCACTCTGGAAGACCTG
```



[View online »](#)

```

AACACCAGATGGAAGCTTCTGCAGGTGGCCGTCGAGGACCGAGTCAGGCAGCTGCATGAA
GCCACAGGGACTTTGGTCCAGCATCTCAGCACTTTCTTTCCACGTCTGTCCAGGGTCCC
TGGGAGAGAGCCATCTCGCCAAACAAAGTGCCTACTATATCAACCACGAGACTCAAACA
ACTTGCTGGGACCATCCAAAATGACAGAGCTCTACCAGTCTTTAGCTGACCTGAATAAT
GTCAGATTCTCAGCTTATAGGACTGCCATGAAACTCCGAAGACTGCAGAAGGCCCTTTCG
TTGGATCTCTTGAGCCTGTCAGCTGCATGTGATGCCTTGGACCAGCACACCTCAAGCAA
AATGACCAGCCCATGGATATCCTGCAGATTATTAATTGTTTGACCACTATTTATGACCCG
CTGGAGCAAGAGCACAAACAATTTGGTCAACGTCCCTCTCTGCGTGGATATGTGTCTGAAC
TGCTGTGAATGTTTATGATACGGGACGAACAGGGAGGATCCGTGTCCTGTCTTTTAAA
ACTGGCATCATTTCCCTGTGTAAAGCACATTTGGAAGACAAGTACAGATACCTTTTCAAG
CAAGTGGCAAGTTCAACAGGATTTTGTGACCAGCGCAGGCTGGGCCTCCTTCTGCATGAT
TCTATCCAAATCCAAGACAGTTGGGTGAAGTTGCATCCTTTGGGGCAGTAACATTGAG
CCAAGTGTCCGGAGCTGCTTCCAATTTGCTAATAATAAGCCAGAGATCGAAGCGGCCCTC
TTCCTAGACTGGATGAGACTGGAACCCAGTCCATGGTGTGGCTGCCCGTCTGCACAGA
GTGGCTGTGCAGAACTGCCAAGCATCAGGCCAAATGTAACATCTGCAAAGAGTGTCCA
ATCATTGGATTACAGTACAGGAGTCTAAAGCACTTTAATTATGACATCTGCCAAAGCTGC
TTTTTTCTGGTCGAGTTGCAAAAAGGCCATAAAATGCACTATCCCATGGTGGAAATATTGC
ACTCCGACTACATCAGGAGAAGATGTTTCGAGACTTTGCCAAGGTAATAAAAAACAATTT
CGAACCAAAAGGTATTTTGCGAAGCATCCCCGAATGGGCTACCTGCCAGTGCAGACTGTC
TTAGAGGGGGACAACATGGAAACGAATCTGCAAGCAGAATATGACCGTCTAAAGCAGCAG
CACGAACATAAAGGCCTGTCCCCACTGCCGTCCCCTCCTGAAATGATGCCACCTCTCCC
CAGAGTCCCCGGGATGCTGAGCTCATTGCTGAGGCCAAGCTACTGCGTCAACACAAGGC
CGCTGGAAGCCAGGATGCAAATCCTGGAAGACCACAATAAACAGCTGGAGTACAGTTA
CACAGGCTAAGGCAGCTGCTGGAGCAACCCAGGCAGAGGCCAAAGTGAATGGCACAAACG
GTGCCTCTCCTTCTACCTCTCTACAGAGTCCGACAGCAGTACGCCTATGCTGCTCCGA
GTGGTTGGCAGTCAAACCTCGGACTCCATGGGTGAGGAAGATCTTCTCAGTCTCCCCAG
GACACAAGCACAGGGTTAGAGGAGGTGATGGAGCAACTCAACAACCTCTCCCTAGTTCA
AGAGGAAGAAATACCCCTGGAAGCCAATGAGAGAGGACACAATGTAG
    
```

Restriction Sites:

Please inquire

ACCN:

NM_004020

OTI Disclaimer:

Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

OTI Annotation:

This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.

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_004020.1 , NP_004011.1
RefSeq Size:	7050 bp
RefSeq ORF:	3318 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
Gene Summary:	<p>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]</p> <p>Transcript Variant: Dp140 transcripts use exons 45-79, starting at a promoter/exon 1 located in intron 44. Dp140 transcripts have a long (1 kb) 5' UTR since translation is initiated in exon 51 (corresponding to aa 2461 of dystrophin). In addition to the alternative promoter and exon 1, differential splicing of exons 71-74 and 78 produces at least five Dp140 isoforms. Of these, this transcript (Dp140c) lacks exons 71-74. Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.</p>