

## Product datasheet for **SC124994**

### Dystrophin (DMD) (NM\_004018) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Dystrophin (DMD) (NM_004018) Human Untagged Clone
Tag:	Tag Free
Symbol:	DMD
Synonyms:	BMD; CMD3B; DXS142; DXS164; DXS206; DXS230; DXS239; DXS268; DXS269; DXS270; DXS272; MRX85
Vector:	<u><a href="#">pCMV6-XL6</a></u>
E. coli Selection:	Ampicillin (100 ug/mL)
Cell Selection:	None



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**Fully Sequenced ORF:** >NCBI ORF sequence for NM\_004018, the custom clone sequence may differ by one or more nucleotides

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ATGAGGGAACAGCTCAAAGGCCACGAGACTCAAACAACCTGCTGGGACCATCCCAAAATGACAGAGCTCT
ACCAGTCTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTTATAGGACTGCCATGAAACTCCGAAGACT
GCAGAAGGCCCTTTGCTTGGATCTCTTGGCCTGTCAGCTGCATGTGATGCCTTGGACCAGCACAACTC
AAGCAAAATGACCAGCCATGGATATCCTGCAGATTATTAATTGTTTACCCTATTTATGACCGCTGG
AGCAAGAGCACAACAATTTGGTCAACGTCCCTCTCTGCGTGGATATGTGTCTGAACTGGCTGCTGAATGT
TTATGATACGGGACGAACAGGGAGGATCCGTGTCTCTTTTAAAACCTGGCATCATTTCCCTGTGTAAA
GCACATTTGGAAGACAAGTACAGATACCTTTTCAAGCAAGTGGCAAGTTCAACAGGATTTTGTGACCAGC
GCAGGCTGGGCCCTCTTCTGCATGATTCTATCCAAATTCAGACAGTTGGGTGAAGTTGCATCCTTTGG
GGGCGTAACATTGAGCCAAGTGTCCGGAGCTGCTTCCAATTTGCTAATAATAAGCCAGAGATCGAAGCG
GCCCTCTTCTAGACTGGATGAGACTGGAACCCAGTCCATGGTGTGGCTGCCCGTCTGCACAGAGTGG
CTGCTGCAGAACTGCCAAGCATCAGGCCAAATGTAACATCTGCAAAGAGTGTCCAATCATTGGATTGAG
GTACAGGAGTCTAAAGCACTTTAATTATGACATCTGCCAAAGCTGCTTTTTTCTGGTTCGAGTTGCAAAA
GGCCATAAAATGCACTATCCCATGGTGGAAATTTGCACTCCGACTACATCAGGAGAAGATGTTTCGAGACT
TTGCCAAGGTAATAAAAAACAAATTTGCAACAAAAGGATTTTGGCAAGCATCCCCGAATGGGCTACCT
GCCAGTGCAGACTGTCTTAGAGGGGGACAACATGGAAACGCCTGCCTCGTCCCCTCAGCTTTACACAGAT
GATACTCATTACGCATTGAACATTATGCTAGCAGGCTAGCAGAAATGGAAAACAGCAATGGATCTTATC
TAAATGATAGCATCTCTCCTAATGAGAGCATAGATGATGAACATTTGTTAATCCAGCATTACTGCCAAAG
TTTGAACCAGGACTCCCCCTGAGCCAGCCTCGTAGTCTGCCAGATCTTGATTTCTTAGAGAGTGGAG
GAAAGAGGGGAGCTAGAGAGAATCCTAGCAGATCTTGGGAAGAAAACAGGAATCTGCAAGCAGAATATG
ACCGTCTAAAGCAGCAGCACGAACATAAAGGCCTGTCCCCTGCGTCCCCTCTGAAAATGATGCCAC
CTCTCCCCAGAGTCCCCGGGATGCTGAGCTCATTGCTGAGGCCAAGCTACTGCGTCAACACAAGGCCGC
CTGGAAGCCAGGATGCAATCCTGGAAGACCACAATAAACAGCTGGAGTACAGTTACACAGGCTAAGGC
AGCTGCTGGAGCAACCCAGGCAGAGGCCAAAGTGAATGGCACAACGGTGTCTCTCCTTCTACCTCTCT
ACAGAGGTCGGACAGCAGTCAAGCCTATGCTGCTCCGAGTGGTGGCAGTCAAACCTCGGACTCCATGGGT
GAGGAAGATCTTCTCAGTCTCCCCAGGACACAAGCACAGGGTTAGAGGAGGTGATGGAGCAACTCAACA
ACTCCTTCCCTAGTTCAAGAGGACACAATGTAGGAAGTCTTTCCACATGGCAGATGATTTGGGCAGAGC
GATGGAGTCTTAGTATCAGTCATGACAGATGAAGAAGGAGCAGAATAA
    
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**5' Read Nucleotide Sequence:**

>OriGene 5' read for NM\_004018 unedited

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CAATCCCCCGCCGATGACGCAAAGGGCGGTAGGCGTGCACGGTGGGAGGTCTATATAA
GCAGAGTCAATTTAGGTGACACTATAGAATACAAGCTACTTGTCTTTTTGCAGCGGCCG
CGAATTCGGCACGAGGGCGCTCCACTTTTCGGGGAGCCCGCGGCTCTGGGAAGTCACTC
TCCACTCGTACCCACACTCGACCGGGAGCCCTTGCAGCCATGAGGGAACAGCTCAAAG
GCCACGAGACTCAAACAACCTTGCTGGGACCATCCCAAAATGACAGAGCTTACCAGTCTT
TAGCTGACCTGAATAATGTCAGAGTCTCAGCTTATAGGACTGCCATGAAACTCCGAAGAC
TGCAGAAGGCCCTTTGCTTGGATCTCTTGGCCTGTCAGCTGCATGTGATGCCTTGGACC
AGCACAACCTCAAGCAAAATGACCAGCCCATGGATATCCTGCAGATTATTAATTGTTTGA
CCACTATTTATGACCGCCTGGAGCAAGAGCACACAATTTGGTCAACGTCCCTCTCTGCG
TGGATATGTGTCTGAACTGGCTGCTGAATGTTTATGATACGGGACGAACAGGAGGATCC
GTGTCCTGTCTTTAAAACCTGGCATCATTTCCCTGTGTAAGCACATTTGGAAGACAAGT
ACAGATACCTTTTCAAGCAAGTGGCCAGTTCAACAGGATTCTGTGACCAGCGCAGGCTGG
GCCTCCTTCTGCATGAGTCTATCCAAATTCAGACAGTTGGGNTGAAGCTGCATCCTTT
GGGGCAGTAACATTGAGCCAAGTGTCCGGAGTCTTCCATTTGCTAATAATAGCCAGA
GATCGAGCGGCCCTCTCTAGATGGAGAGACTGCCACCCAGCCATGTGTGCTGCCCGTC
TGCACAGATGCTGC
    
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**Restriction Sites:**

NotI-NotI

<b>ACCN:</b>	NM_004018
<b>Insert Size:</b>	5000 bp
<b>OTI Disclaimer:</b>	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).
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_004018.1</a> , <a href="#">NP_004009.1</a>
<b>RefSeq Size:</b>	4552 bp
<b>RefSeq ORF:</b>	1869 bp
<b>Locus ID:</b>	1756
<b>UniProt ID:</b>	<a href="#">P11532</a>
<b>Cytogenetics:</b>	Xp21.2-p21.1
<b>Protein Pathways:</b>	Arrhythmogenic right ventricular cardiomyopathy (ARVC), Dilated cardiomyopathy, Hypertrophic cardiomyopathy (HCM), Viral myocarditis
<b>Gene Summary:</b>	<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: Dp71 transcripts use exons 63-79 with a novel 80- to 100-nt exon containing an ATG start site for a new coding sequence of 17 nt. The short coding sequence is in-frame with the consecutive dystrophin sequence from exon 63. Differential splicing of exons 71 and 78 produces at least four Dp71 isoforms. Of these, this transcript (Dp71ab) lacks both exons 71 and 78 and encodes a protein with a C-terminus like isoform Dp71b.</p>