

## Product datasheet for **SC315966**

### Dystrophia myotonica protein kinase (DMPK) (NM\_001081563) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Dystrophia myotonica protein kinase (DMPK) (NM_001081563) Human Untagged Clone
Tag:	Tag Free
Symbol:	Dystrophia myotonica protein kinase
Synonyms:	DM; DM1; DM1PK; DMK; MDPK; MT-PK
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**Fully Sequenced ORF:** >NCBI ORF sequence for NM\_001081563, the custom clone sequence may differ by one or more nucleotides  
 ATGGGAGGGCATTTTTGGCCCCAGAACCTTACACGGTGTATGTGGGGAAGCCCCTGG  
 GAAGCAGACAGTCTAGGGTGAAGCTGAGAGGCAGAGAGAAGGGGAGACAGACAGAGGGT  
 GGGGCTTCCCCCTTGTCTCCAGTGCCTTTCTGGTGACCCTCGGTTCTTTTCCCCACC  
 ACCCCCCAGCGGAGCCCATCGTGGTGAGGCTTAAGGAGGTCCGACTGCAGAGGGACGAC  
 TTCGAGATTCTGAAGGTGATCGGACGCGGGGCGTTCAGCGAGGTAGCGGTAGTGAAGATG  
 AAGCAGACGGGCCAGGTGTATGCCATGAAGATCATGAACAAGTGGGACATGCTGAAGAGG  
 GCGAGGTGTCGTGCTTCCGTGAGGAGAGGGACGTGTTGGTGAATGGGGACCGGCGGTGG  
 ATCACGCAGCTGCACTTCGCCTTCCAGGATGAGAACTACCTGTACCTGGTCATGGAGTAT  
 TACGTGGGCGGGACCTGCTGACACTGCTGAGCAAGTTTGGGAGCGGATTCCGGCCGAG  
 ATGGCGCGCTTACCTGGCGGAGATTGTATGGCCATAGACTCGGTGCACCGGCTTGGC  
 TACGTGCACAGGGACATCAAACCCGACAACATCCTGCTGGACCGCTGTGGCCACATCCGC  
 CTGGCCGACTTCCGCTCTTGCTCAAGCTGCGGGCAGATGGAACGGTGCAGTGCCTGGT  
 GCTGTGGGCACCCAGACTACCTGTCCCCGAGATCCTGCAGGCTGTGGGCGGTGGGCT  
 GGGACAGGCAGCTACGGGCCGAGTGTGACTGGTGGGCGCTGGGTGTATTGCGCTATGAA  
 ATGTTCTATGGGAGACGCCCTTACGCGGATCCACGCGGAGACCTATGGCAAGATC  
 GTCCACTACAAGGAGCACCTCTCTGCGGCTGGTGGACGAAGGGGTCCCTGAGGAGGCT  
 CGAGACTTCATTAGCGGTTGCTGTGTCCCGGAGACACGGCTGGGCGGGGTGGAGCA  
 GGCGACTTCCGGACACATCCCTTCTTTGGCCTCGACTGGGATGGTCTCCGGGACAGC  
 GTGCCCCCTTTACACCGGATTTTGAAGGTGCCACCGACACATGCAACTTCGACTTGGTG  
 GAGGACGGGCTCACTGCCATGGTGAGCGGGGCGGGGAGACACTGTCGGACATTCGGGAA  
 GCTGCGCCGCTAGGGGTCCACCTGCCTTTTGGGCTACTCTACTCTGCATGGCCCTC  
 AGGGACAGTGAGGTCCCAGGCCCCACACCCATGGAAGTGGAGGCCGAGCAGCTGCTTGAG  
 CCACACGTGCAAGCGCCAGCCTGGAGCCCTCGGTGTCCCCACAGGATGAAACAGCTGAA  
 GTGGCAGTTCAGCGGCTGTCCCTGCGGCAGAGGCTGAGGCCGAGGTGACGCTGCGGGAG  
 CTCCAGGAAGCCCTGGAGGAGGAGGTGCTCACCCGGCAGAGCCTGAGCCGGGAGATGGAG  
 GCCATCCGCACGGACAACCAGAACTTCGCCAGTCAACTACGCGAGGCAGAGGCTCGGAAC  
 CGGGACCTAGAGGCACACGTCCGGCAGTTGCAGGAGCGGATGGAGTTGCTGCAGGCAGAG  
 GGAGCCACAGCTGTCACGGGGTCCCAGTCCCCGGGCCACGGATCCACCTTCCCATCTA  
 GATGGCCCCCGCCGTGGCTGTGGCCAGTGCCTGCTGGTGGGCGCAGGCCCATGCAC  
 CGCCGCCACCTGCTGCTCCCTGCCAGGGTCCCTAGGCCTGGCCTATCGGAGGCGCTTCC  
 CTGCTCCTGTTCCCGTGTCTGTCTCGTGCCGCGCCCTGGGCTGCATTGGGTGGTG  
 GCCACGCGGCCAACTACCGCAGTCTGGCGCCGCCAGGAGCCGCCCGCGCTCCC

- Restriction Sites:** Please inquire
- ACCN:** NM\_001081563
- 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).

<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>	<u><a href="#">NM_001081563.1</a></u> , <u><a href="#">NP_001075032.1</a></u>
<b>RefSeq Size:</b>	3261 bp
<b>RefSeq ORF:</b>	1920 bp
<b>Locus ID:</b>	1760
<b>UniProt ID:</b>	<u><a href="#">Q09013</a></u>
<b>Cytogenetics:</b>	19q13.32
<b>Protein Families:</b>	Druggable Genome, Protein Kinase
<b>Gene Summary:</b>	<p>The protein encoded by this gene is a serine-threonine kinase that is closely related to other kinases that interact with members of the Rho family of small GTPases. Substrates for this enzyme include myogenin, the beta-subunit of the L-type calcium channels, and phospholemman. The 3' untranslated region of this gene contains 5-38 copies of a CTG trinucleotide repeat. Expansion of this unstable motif to 50-5,000 copies causes myotonic dystrophy type I, which increases in severity with increasing repeat element copy number. Repeat expansion is associated with condensation of local chromatin structure that disrupts the expression of genes in this region. Several alternatively spliced transcript variants of this gene have been described, but the full-length nature of some of these variants has not been determined. [provided by RefSeq, Jul 2016]</p> <p>Transcript Variant: This variant (1) represents the longest transcript and encodes the longest isoform (1), also known as Form I.</p>