

## Product datasheet for **RC238810**

### Dystrophia myotonica protein kinase (DMPK) (NM\_001288765) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Dystrophia myotonica protein kinase (DMPK) (NM_001288765) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	DMPK
Synonyms:	DM; DM1; DM1PK; DMK; MDPK; MT-PK
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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**ORF Nucleotide Sequence:**

>RC238810 representing NM\_001288765  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGAAGCAGACGGGCCAGGTGTATGCCATGAAGATCATGAACAAGTGGGACATGCTGAAGAGGGGCGAGG  
 TGTCGTGCTTCCGTGAGGAGAGGGACGTGTTGGTGAATGGGGACCGCGGTGGATCACGCAGCTGCACTT  
 CGCCTTCCAGGATGAGAACTACCTGTACCTGGTCATGGAGTATTACGTGGGCGGGGACCTGCTGACACTG  
 CTGAGCAAGTTTGGGAGCGGATCCGGCCGAGATGGCGCGCTTCTACCTGGCGGAGATTGTCATGGCCA  
 TAGACTCGGTGCACCGGCTTGGCTACGTGCACAGGGACATCAAACCCGACAACATCCTGCTGGACCCTG  
 TGGCCACATCCGCTGGCCGACTTCGGCTCTTGCCTCAAGCTGCGGGCAGATGGAACGGTGGCGTGGCTG  
 GTGGCTGTGGGCACCCAGACTACCTGTCCCCGAGATCTGCAGGCTGTGGCGGTGGGCTGGGACAG  
 GCAGCTACGGGCCGAGTGTGACTGGTGGGCGCTGGGTGATTCCGCTATGAAATGTTCTATGGGCAGAC  
 GCCCTTCTACCGGATTCCACGGCGGAGACCTATGGCAAGATCGTCCACTACAAGGAGCACCTCTCTCTG  
 CCCTGTGGACGAAGGGTCCCTGAGGAGGCTCGAGACTTCATTACGCGGTTGCTGTGTCCCCCGGAGA  
 CACGGCTGGGCCGGGTGGAGCAGGCGACTTCCGGACACATCCCTTCTTCTTGGCCTCGACTGGGATGG  
 TCTCCGGGACAGCGTGCCCCCTTTACACCGGATTTTCAAGGTGCCACCGACACATGCAACTTCGACTTG  
 GTGGAGGACGGGCTCACTGCCATGGTGAGCGGGGGCGGGGAGACTGTCCGGACATTCGGGAAGGTGCGC  
 CGTAGGGGTCCACCTGCCTTTTGTGGGCTACTCTACTCTGTCATGGCCCTCAGGGACAGTGAGGTCCC  
 AGGCCCCACCCATGAACTGGAGGCCGAGCAGCTGCTTGAAGCCACAGTGAAGCGCCAGCCTGGAG  
 CCCTCGGTGTCCCACAGGATGAAACAGCTGAAGTGGCAGTTCAGCGGCTGTCCCTGCGGCAGAGGCTG  
 AGGCCGAGGTGACGCTGCGGGAGCTCCAGGAAGCCCTGGAGGAGGAGTGTCTACCCCGGAGGCTGAG  
 CCGGGAGATGGAGGCCATCCGCACGGACAACCAGAACTTCGCCAGTCAACTACGCGAGGCAGAGGCTCGG  
 AACCGGGACCTAGAGGCACACGTCCGGCAGTTGCAAGGAGCGGATGGAGTTGCTGCAGGCAGAGGGAGCCA  
 CAGCTGTACGGGGTCCCCAGTCCCCGGGCCACGGATCCACCTTCCCATATGGCCCCCGGCCGTGGCT  
 GTGGGCCAGTGCCGCTGGTGGGGCCAGGCCCATGCACCGCCGACCTGCTGCTCCCTGCCAGGGTCC  
 CTAGGCCGTGGCTATCGGAGGCGCTTCCCTGCTCCTGTTCCGCGTTGTTCTGTCTCGTCCGCCGCCCT  
 GGGCTGCATTGGGTTGGTGGCCACGCCGCAACTACCGCAGTCTGGCGCCGCCAGGAGCCGCCCGC  
 GCTCCCTGAACCC

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC238810 representing NM\_001288765  
 Red=Cloning site Green=Tags(s)

MKQTGQVYAMKIMNKWMLKRGEVSCFREERDVLVNGDRRWITQLHFAFQDENLYLVMEYYVGGDLLTL  
 LSKFGERIPAEMARFYLAIEIVMAIDSVHRLGYVHRDIKPDNILLDRCGHIRLADFGSCLKLRADGTVRSL  
 VAVGTPDYLSPEILQAVGGPGTGSYGPECDWWALGVFAYEMFYGQTPFYADSTAETYGKIVHYKEHLSL  
 PLVDEGVPEEARDFIQRLLCPPETRLGRGGAGDFRTHPFFFLDWDGLRDSVPPFPDFEGATDTCNFDL  
 VEDGLTAMVSGGETLSDIREGAPLGVHLPFVGYSYSCMALRDSEVPGPTPMELEAEQLLEPHVQAPSLE  
 PSVSPQDETAEVAVPAAPAAEAEAEVTLRELQEALEEEVLTRQSLSREMEAIRTDNQNFASQLREAEAR  
 NRDLEAHVRQLQERMELLQAEGATAVTGVPSPRATDPPSHMAPRPWLWASARWWGQAPCTAATCCSLPGS  
 LGLAYRRRFPCSCSPLFCLVPPPWAALGWPTPANSPQSGAAQEPALPEP

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:**

SgfI-MluI



<b>ACCN:</b>	NM_001288765
<b>ORF Size:</b>	1623 bp
<b>OTI Disclaimer:</b>	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. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<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_001288765.1</a> , <a href="#">NP_001275694.1</a>
<b>RefSeq Size:</b>	2510 bp
<b>RefSeq ORF:</b>	1626 bp
<b>Locus ID:</b>	1760
<b>UniProt ID:</b>	<a href="#">Q09013</a>
<b>Cytogenetics:</b>	19q13.32
<b>Protein Families:</b>	Druggable Genome, Protein Kinase
<b>MW:</b>	60.3 kDa
<b>Gene Summary:</b>	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]