

## Product datasheet for **RC230497**

### **MUSK (NM\_001166280) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	MUSK (NM_001166280) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	MUSK
Synonyms:	CMS9; FADS; FADS1
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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**ORF Nucleotide  
Sequence:**

>RC230497 representing NM\_001166280  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGAGAGAGCTCGTCAACATTCCACTGGTACATATTCTTACTCTGGTTGCCTTCAGCGGAACTGAGAAAC  
 TTCAAAAAGCTCCTGTATCACCCTCCTTGAACAGTGGATGCCTTAGTTGAAGAAGTGGCTACTTT  
 CATGTGTGCACTGGAATCCTACCCACAGCTGAGATTTCTGGACTAGAAATAAAATTCTCATTAAACTC  
 TTTGACACCCGGTACAGCATCCGGGAGAATGGGCAGCTCCTCACCATCCTGAGTGTGGAAGACAGTGATG  
 ATGGCATTACTGCTGCACGGCCAACAATGGTGTGGGAGGAGCTGTGGAGAGTTGTGGAGCCCTGCAAGT  
 GAAGATGAAACCTAAAATAACTCGTCTCCATAAATGTGAAAATAATAGAAGGATTAAGAGCAGTCCTA  
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 ATTCCCGAATTGCAGTTCTTGAATCTGGGAGCTTGAGGATTCATAACGTACAAAAGGAAGATGCAGGACA  
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 TTTGTGCTTCTTACCATAACTACTCTCTATTGCTGCCGAAGAAGAAAACAATGGAATAAAGAAAAGAG  
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 ATGAACCTTCTACTATGGTGGCAGTAAAGATGCTCAAAGAAGAAGCCTCGGCAGATATGCAAGCGGACTT  
 TCAGAGGGAGGCAGCCCTCATGGCAGAATTTGACAACCCTAACATTGTGAAGCTATTAGGAGTGTGTGCT  
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 GCCTATGGCGTGGTCTCTGGGAGATCTTCTCTATGGCCTGCAGCCCTACTATGGGATGGCCATGAGG  
 AGGTCAATTTACTACGTGCGAGATGGCAACATCCTCTCTGCCCAGAACTGCCCCGTTGGAGCTGTACAA  
 TCTCATGCGTCTATGTTGGAGCAAGCTGCCTGCAGACAGACCCAGTTTACCAGTATTCACCGAATTCG  
 GAACGCATGTGTGAGAGGGCAGAGGAACTGTGAGTGTC

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RC230497 representing NM\_001166280  
 Red=Cloning site Green=Tags(s)

MRELVNIPLVHILTLVAFSGTEKLPKAPVITTPLETVDALVEEVATFMCAYESYPQPEISWTRNKILIKL  
 FDTRYSIRENGQLLTILSVEDSDGIYCTANNGVGGAVESGALQVKMKPKITRPPINVKIEGLKAVL  
 PCTTMGNPKPSVSWIKGDSPLRENSRIAVLESGSLRIHNVQKEDAGQYRCVAKNSLGTAYSKVVKLEVEE  
 ESEPEQDTKVFARILRAPESHNVTFGSFVTLHCTATGIPVPTITWIENGNVSSGSIQESVKDRVIDSRL  
 QLFITKPLGYTCIATNKHGEKFSTAKAAATISIAEWREYCLAVKELFCAKEWLVMEEKTHRGLYRSEMHL  
 LSVPECSKLPMSHWDPTACARLPHLAFPPMTSSKPSVDIPNLPSSSSSSFSVSPTYSMTVIIISIMSSFAI  
 FVLLTITTLVCCRKRQWKNKKRESAAVLTLLPSELLDRLHPNPMYQRMPLLLNPKLLSLEYPRNIE  
 YVRDIGEGAFGRVFQARAPGLLPYEPFTMVAVKMLKEEASADMQADFQREAAALMAEFDNPNIVKLLGVCA  
 VGKPMCLLFEYMAYGDLNEFLRSMSPHTVCSLSHSDL SMRAQVSSPGPPPLSCAEQLCIARQAAGMAYL  
 SERKFVHRDLATRNCLVGENMVVKIADFGLSRNIYSADYYKANENDAIPIRWMPPEIFYNRYTTESDVW  
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 ERM CERAEGTVSV

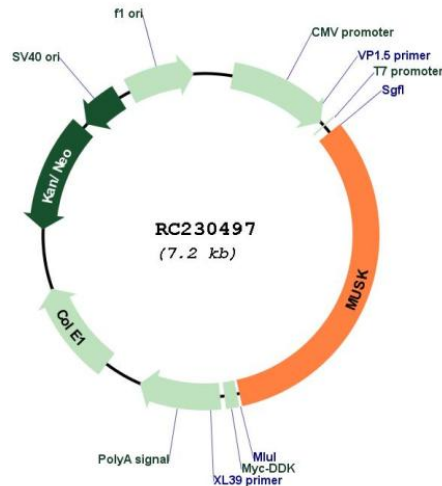
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**



**Plasmid Map:**


<b>ACCN:</b>	NM_001166280
<b>ORF Size:</b>	2349 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_001166280.1</a> , <a href="#">NP_001159752.1</a>
<b>RefSeq ORF:</b>	2352 bp
<b>Locus ID:</b>	4593
<b>UniProt ID:</b>	<a href="#">O15146</a>
<b>Cytogenetics:</b>	9q31.3
<b>Protein Families:</b>	Druggable Genome, Protein Kinase, Transmembrane

**MW:** 88 kDa

**Gene Summary:** This gene encodes a muscle-specific tyrosine kinase receptor. The encoded protein may play a role in clustering of the acetylcholine receptor in the postsynaptic neuromuscular junction. Mutations in this gene have been associated with congenital myasthenic syndrome. Alternatively spliced transcript variants have been described.[provided by RefSeq, Oct 2009]