

Product datasheet for **RC600070**

MUSK (NM_001166281) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	MUSK (NM_001166281) Human Tagged ORF Clone
Tag:	DDK-His
Symbol:	MUSK
Synonyms:	CMS9; FADS; FADS1
Mammalian Cell Selection:	None
Vector:	pCMV6-XL5-DDK-His (PS100068)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RC600070 representing leader sequence plus the extracellular domain region of NM_001166281

Red=Cloning site Blue=ORF Green=Tags(s)

GTAATACGACTCACTATAGGGCGGCCGGAATTCGTGCGACTGGATCTGGTACCGAGGAGATCCGCCGCCG
CGATCGCC

ATGAGAGAGCTCGTCAACATTCCACTGGTACATATTCTTACTCTGGTTGCCTTCAGCGGAACTGAGAAAC
TTCCAAAAGCTCCTGTCATCACCCTCCTCTTGAACAGTGGATGCCTTAGTTGAAGAAGTGGCTACTTT
CATGTGTGCGAGTGAATCCTACCCCGAGCTGAGATTTCTGGACTAGAAATAAAATTCTCATAAACTC
TTTGACACCCGGTACAGCATCCGGGAGAATGGGCAGCTCCTCACCATCCTGAGTGTGGAAGACAGTGATG
ATGGCATTACTGCTGCACGGCCAACAATGGTGTGGGAGGAGCTGTGGAGAGTTGTGGAGCCCTGCAAGT
GAAGATGAAACCTAAAAAATACTCGTCTCCATAAATGTGAAAATAATAGAGGGATTAAGCAGTCCTA
CCATGTACTACAATGGGTAAATCCCAAACCATCAGTGTCTTGGATAAAGGGAGACAGCCCTCTCAGGGAAA
ATTCCCGAATTGCAGTTCTTGAATCTGGGAGCTTGAGGATTCATAACGTACAAAAGGAAGATGCAGGACA
GTATCGATGTGTGGCAAAAACAGCCTCGGACAGCATATTCAAAGTGGTGAAGCTGGAAGTTGAGGTT
TTTGCCAGGATCCTGCGGGCTCCTGAATCCCACAATGTCACCTTTGGCTCCTTTGTGACCCTGCACTGTA
CAGCAACAGGCATTCTGTCCCCACCATCACCTGGATTGAAAACGGAAATGCTGTTTCTTCTGGTCCAT
TCAAGAGAGTGTGAAAGACCGAGTGATTGACTCAAGACTGCAGCTGTTTATCACCAGCCAGGACTCTAC
ACATGCATAGCTACCAATAAGCATGGGGAGAAGTTCAGTACTGCCAAGGCTGCAGCCACCATCAGCATAG
CAGAATGGAGAGAGTACTGCTTGGCAGTAAAGGAGCTCTTCTGCGCAAAGAATGGCTGGTAATGGAAGA
GAAGACCCACAGAGGACTCTACAGATCCGAGATGCATTTGCTGTCCGTGCCAGAATGCAGCAAGCTTCCC
AGCATGCATTGGGACCCACGGCCTGTGCCAGACTGCCACATCTAGCATTCCCACCAATGACGTCCTCAA
AGCCAAGTGTGGACATTCAAATCTGCCTCCTCCTCTTCTCTCTCTGTCTCACCTACATACTC
CATGACT

ACGCGTTCAGGCGACTACAAGGATGACGACGATAAGGGATCTCATCATCACCATCACCATTAATGAGATC
TGGTACCGATATCAAGCTTGTGACTCTAGA

Protein Sequence:

>RC600070 representing signal peptide plus the extracellular domain region of NM_001166281

Red=Cloning sites Green= DDK and 6XHIS Tags

MRELVNIPLVHILTLVAFSGTEKLPKAPVITTPLETVDALVEEVATFMCIVESYPQPEISWTRNKILIKL
FDTRYSIRENGQLLTILSVEDSDDGIYCCTANNGVGGAVESGALQVKMKPKITRPPINVKIEGLKAVL
PCTTMGNPKPSVSWIKGDSPLRENSRIAVLESGSLRIHNVQKEDAGQYRCVAKNSLGTAYSKVVKLEVEV
FARILRAPESHNVTFGSFVTLHCTATGIPVPTITWIENGNVSSGSIQESVKDRVIDSRLQLFITKPGLY
TCIATNKHGEKFSTAKAAATISIAEWREYCLAVKELFCAKEWLVMEEKTHRGLYRSEMHLLSVPECSKLP
SMHWDPTACARLPHLAFPPMTSSKPSVDIPNLPSSSSSSFSVSPTYSMT

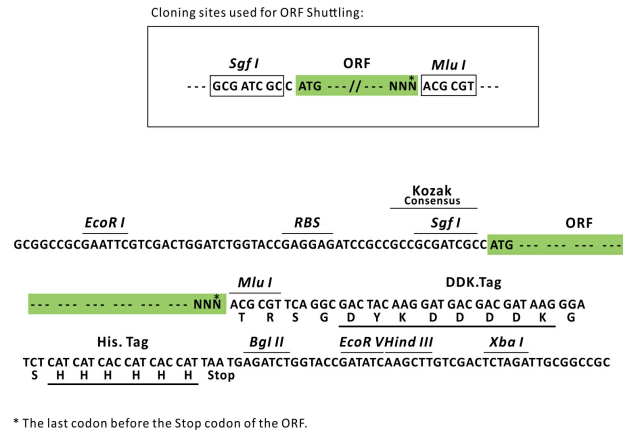
TRSGTRSGDYKDDDDKGSHHHHHH

Chromatograms:

https://cdn.origene.com/chromatograms/mk8117_h09.zip

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:


ACCN: NM_001166281

ORF Size: 1197 bp

OTI Disclaimer: 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. [More info](#)

OTI Annotation: This clone was engineered to express the extra cellular domain of the protein with an expression tag. Expression varies depending on the nature of the gene.

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_001166281.1](#), [NP_001159753.1](#)

RefSeq Size: 2466 bp

RefSeq ORF: 2322 bp

Locus ID: 4593

UniProt ID: [O15146](#)

Cytogenetics: 9q31.3

Protein Families: Druggable Genome, Protein Kinase, Transmembrane

MW: 43.8 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]