

## Product datasheet for **SC329126**

### **MUSK (NM\_001166281) Human Untagged Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	MUSK (NM_001166281) Human Untagged Clone
Tag:	Tag Free
Symbol:	MUSK
Synonyms:	CMS9; FADS; FADS1
Mammalian Cell Selection:	None
Vector:	<u><a href="#">pCMV6-XL5</a></u>
E. coli Selection:	Ampicillin (100 ug/mL)



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**Fully Sequenced ORF:** >OriGene sequence for NM\_001166281 edited  
 TGC GTTGTCCAGAAGGA ACTTCGTCCTGCGTGAGCCTGGATTAATCATGAGAGAGCTCGT  
 CAACATTCCACTGGTACATATTCTTACTCTGGTTGCC TTCAGCGGA ACTGAGAACTTCC  
 AAAAGCTCCTGTCATCACC ACTCCTCTTGAAACAGTGGATGCCTTAGTTGAGAAGTGGC  
 TACTTTTCATGTGTGCAGTGGAACTCTACCCCGCCTGAGATTTCTGGACTAGAAATAA  
 AATTCATTAAACTCTTTGACACCCGGTACAGCATCCGGGAGAATGGGCAGCTCCTCAC  
 CATCCTGAGTGTGGAAGACAGTGTATGGCATTACTGCTGCACGGCCAACAATGGTGT  
 GGGAGGAGCTGTGGAGAGTTGTGGAGCCCTGCAAGTGAAGATGAAACCTAAAAATAACTCG  
 TCCTCCCAATAAATGTGAAAATAATAGAAGGATTAAGAGCAGTCTACCATGTA CTACAAT  
 GGGTAATCCCAAACCATCAGTGTCTTGGATAAAGGGAGACAGCCCTCTCAGGGAAAATTC  
 CCGAATTGCAGTCTTGAATCTGGGAGCTTGAGGATTCATAACGTACAAAAGGAAGATGC  
 AGGACAGTATCGATGTGTGGCAAAAAACAGCCTCGGGACAGCATATCCAAAGTGGTGAA  
 GCTGGAAGTTGAGGTTTTGCCAGGATCCTGCGGGCTCCTGAATCCACAATGTCACCTT  
 TGGCTCCTTTGTACCCTGCACTGTACAGCAACAGGCATTCTGTCCCCACCATCACCTG  
 GATTGAAAACGGAAATGTGTTTTCTTGGGTCCATTCAAGAGAGTGTGAAAGACCGAGT  
 GATTGACTCAAGACTGCAGCTGTTATACCAAGCCAGGACTCTACACATGCATAGCTAC  
 CAATAAGCATGGGGAGAAGTTCAGTACTGCCAAGGCTGCAGCCACCATCAGCATAGCAGA  
 ATGGAGAGAGTACTGCTTGGCAGTAAAGGAGCTTCTGCGCAAAAAGAAATGGCTGGTAAT  
 GGAAGAGAAGACCCACAGAGGACTCTACAGATCCGAGATGCATTTGCTGTCCGTGCCAGA  
 ATGCAGCAAGCTTCCCAGCATGCATTGGGACCCACCGCCTGTGCCAGACTGCCACATCT  
 AGCATTCCCACCAATGACGTCTCAAAGCCAAGTGTGGACATTCCAAATCTGCCTTCCTC  
 CTCCTCTTCTTCTTCTGTCTCACCTACATACTCCATGACTGTAATAATCTCCATCAT  
 GTCCAGCTTTGCAATATTTGTGCTTCTTACCATAACTACTCTCTATTGCTGCCGAAGAAG  
 AAAACAATGGA AAAATAAGAAAAGAGAATCAGCAGCAGTAACCCCTACCCACTGCCTTC  
 TGAGCTCTTACTAGATAGACTTCATCCCAACCCCATGTACCAGAGGATGCCGCTCCTTCT  
 GAACCCCAAAATTGCTCAGCCTGGAGTATCCAAGGAATAACATTGAATATGTGAGAGACAT  
 CGGAGAGGGAGCGTTTGGAAAGGGTGTTC AAGCAAGGGCACAGGCTTACTTCCCTATGA  
 ACCTTTCACTATGGTGGCAGTAAAGATGCTCAAAGAAGAAGCCTCGGCAGATATGCAAGC  
 GGACTTTCAGAGGGAGGCAGCCCTCATGGCAGAATTTGACAACCCTAACATTGTGAAGCT  
 ATTAGGAGTGTGTGCTGTCCGGAAGCCAATGTGCCTGCTCTTTGAATACATGGCCTATGG  
 TGACCTCAATGAGTTCTCCGCAGCATGTCCCCTCACACCGTGTGCAGCCTCAGTCACAG  
 TGACTTGTCTATGAGGGCTCAGGTCTCCAGCCCTGGGCCCCACCCCTCTCCTGTGCTGA  
 GCAGCTTTGCATTGCCAGGCAGGTGGCAGCTGGCATGGCTTACCTCTCAGAACGTAAGTT  
 TGTTACCCGAGATTTAGCCACCAGGA ACTGCCTGGTGGGCGAGAACATGGTGGTAAAAAT  
 TGCCGACTTTGGCCTCTCCAGGAACATCTACTCAGCAGACTACTACAAAGCTAATGAAAA  
 CGACGCTATCCCTATCCGTTGGATGCCACCAGAGTCCATTTTTATAACCGCTACACTAC  
 AGAGTCTGATGTGTGGGCTATGGCGTGGTCTCTGGGAGATCTTCTCCTATGGCCTGCA  
 GCCCTACTATGGGATGGCCATGAGGAGGTCATTTACTACGTGCGAGATGGCAACATCCT  
 CTCCTGCCCTGAGAACTGCCCGTGGAGCTGTACAATCTCATGCGTCTATGTTGGAGCAA  
 GCTGCCTGCAGACAGACCCAGTTTACCCAGTATTACCCGAATTTCTGGAACGCATGTGTGA  
 GAGGGCAGAGGGA ACTGTGAGTGTCTAAGTTGAAGAC

**Restriction Sites:** Please inquire  
**ACCN:** NM\_001166281  
**Insert Size:** 2400 bp

**OTI Disclaimer:** Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at [custsupport@origene.com](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

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 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).

**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

**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]

Transcript Variant: This variant (3) lacks an alternate in-frame exon in the middle portion of the coding region compared to variant 1. The encoded isoform (3) is shorter than isoform 1.

Sequence Note: The RefSeq transcript and protein were derived from genomic sequence to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on alignments.