

## Product datasheet for **MG226028**

### Musk (NM\_001165996) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Musk (NM_001165996) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Musk
Synonyms:	Mdk4; Mlk; Ns; Nsk1; Nsk2; Nsk3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>MG226028 representing NM\_001165996  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGAGAGAGCTTGTCAACATTCCACTGTTACAGATGCTCACCTGGTTGCCTTCAGCGGGACTGAGAAAC  
 TTCAAAAGCCCCGTGCATCACCCAGCCTCTTGAACTGTAGATGCCTTGTTGAAGAAGTAGCGACTTT  
 CATGTGTGCCGTGGAATCCTACCCTCAGCCGAGATTTCTTGACCAGAAATAAAATTCTCATTAAAGCTG  
 TTTGACACCCGCTACAGCATCCGGGAGAATGGTCAGCTCCTCACCATTCTGAGCGTGAAGACAGTGATG  
 ATGGCATCTACTGCTGCATAGCCAACAATGGAGTGGGAGGAGCCGTGGAGAGTTGTGGTCCCTGCAAGT  
 GAAGATGAAACCTAAAATAACTCGTCTCCATTAATGTAATAAATAGAGGGATTGAAGGCAGTTCTG  
 CCGTGCCTACGATGGTAACCCCAAACCATCTGTGTCTGGATCAAGGGGGACAATGCTCTCAGGGAAA  
 ATTCCAGAATCGAGTTCTTGAATCTGGGAGCTTAAGGATCCATAATGTGCAAAAGGAAGATGCAGGACA  
 GTACCGCTGTGTGCCAAAACAGCCTGGGCACAGCTTACTCAAACCTGGTGAAGCTGGAAGTGGAGGTT  
 TTTGCAAGAATCCTGCGTCTCCTGAATCCCACAATGTCACCTTTGGTTCCTTTGTAACCCACCGCTGCA  
 CAGCAATAGGCATCCCTGTCCCCACCATCAGCTGGATTGAAAACGGAAATGCTGTTTCTTCAGGTTCCAT  
 TCAAGAGAGTGTGAAAGACCGAGTGATTGACTCAAGACTCCAGCTCTTCATCACAAAGCCAGGACTCTAC  
 ACATGCATAGCTACCAATAAGCACGGAGAAAAGTTCAGTACCGCAAAGGCTGCAGCCACTGTCAGCATAG  
 CAGAATGGAGTAAGTACAGAAAGACAGCCAAGGCTACTGTGCCAGTACAGAGGGGAGGTGTGTGATGC  
 AGTCTGGCGAAAGATGCTCTTGTCTTCTCAACACCTCTACCGGGACCCGAGGACGCCAGGAGCTG  
 CTGATCCACACTGCGTGAATGAGCTGAAGGCTGTGAGTCCACTGTGCCGCCAGCTGCTGAGGCTCTGC  
 TGTGTAACCACCTCTTCCAAGAGTGCAGCCCTGGAGTGGTACTACTCCCATGCCATTTGCAGAGAGTA  
 CTGCCTGGCGGTAAGGAGCTCTTCTGTGCAAAGGAATGGCAGGCAATGGAAGGAAAGGCCACCGGGGC  
 CTCTACAGATCTGGGATGCATCTCCTTCCGGTACCAGAGTGCAGCAAGCTTCCCAGCATGCACCGGACC  
 CCACAGCCTGCACAAGACTGCCATATTTAGGTAACAAAGAAGTTCCTCCAGACTTTGGAAGT

**ACGCGTACGCGGCCGCTCGAG** – GFP Tag – GTTTAA

**Protein Sequence:**

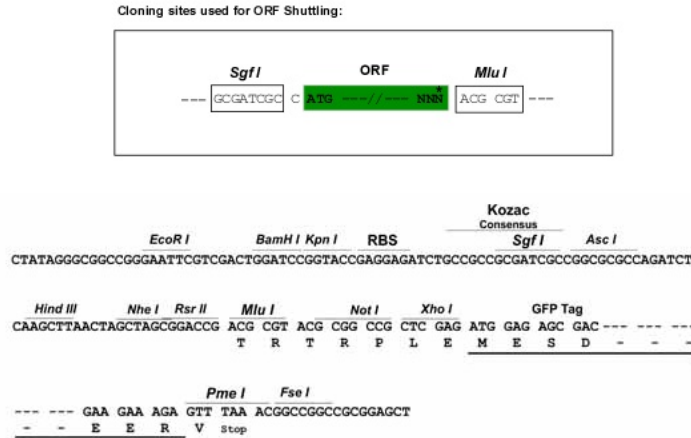
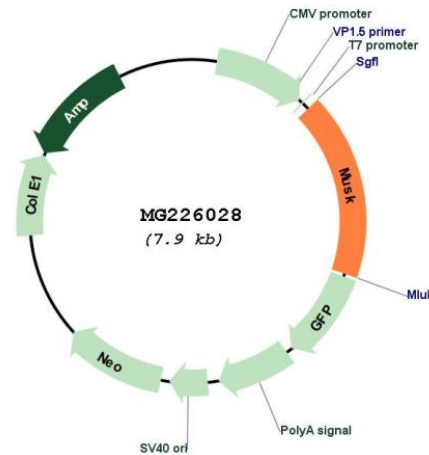
>MG226028 representing NM\_001165996  
 Red=Cloning site Green=Tags(s)

MRELVNIPLLQMLTLVAFSGTEKLPKAPVITTPLETVDALVEEVATFMCIVESYPQPEISWTRNKILIKL  
 FDRYSIRENGQLLTIILSVEDSDDGIYCCIANNGVGGAVESGALQVKMKPKITRPPINVKIEGLKAVL  
 PCTTMGNPKPSVSWIKGDNALRENSRIAVLESGLRIHNVQKEDAGQYRCVAKNSLGTAYSKLVKLEVEV  
 FARILRAPESHNVTFGSFVTLRCTAIGIPVPTISWIENGNVSSGSIQESVKDRVIDSRLQLFITKPLY  
 TCIATNKHGEKFSTAKAAATVSIAEWSKSQKDSQGYCAQYRGEVCDVLAKDALVFFNTSYRDPEDAQEL  
 LIHTAWNELKAVSPLCRPAAEALLCNHLFQECSPGVVPTPMPICREYCLAVKELFCAKEWQAMEGKAHRG  
 LYRSGMHLLPVPECSKLPMSHRDPTACTRLPYLGNKEVPPDFGS

**TRTRPLE** – GFP Tag – V

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**

**Plasmid Map:**


**ACCN:** NM\_001165996

**ORF Size:** 1392 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 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>	<u>NM_001165996.1</u> , <u>NP_001159468.1</u>
<b>RefSeq Size:</b>	1747 bp
<b>RefSeq ORF:</b>	1395 bp
<b>Locus ID:</b>	18198
<b>Cytogenetics:</b>	4 31.87 cM
<b>Gene Summary:</b>	<p>This gene encodes a member of the protein tyrosine kinase family. The encoded protein is a type 1 receptor-like protein located in muscle membrane that is activated by the heparan sulfate proteoglycan agrin released by nerve cells. The encoded protein activates signaling cascades responsible for multiple aspects of motor neuron and muscle development, including organization of the postsynaptic membrane, synaptic gene transcription, patterning of skeletal muscle, anchoring of acetylcholinesterase, and guidance of motor axons. Alternatively spliced transcript variants encoding different isoforms have been described. [provided by RefSeq, Jul 2008]</p>