

## Product datasheet for **MR224777**

### Myoc (NM\_010865) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Myoc (NM_010865) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Myoc
Synonyms:	AI957332; GLC1A; TIGR
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>MR224777 ORF sequence  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGCCAGCTCTCCATCTGCTGTTTCTGCGCTGCTTGGTGTGGGAATGGGGCCAGGACAGCACAGTTC  
 GAAAGGCCAATGATCGGAGTGGCCGATGCCAATACACCTTCACTGTGGCCAGCCCAATGAATCTAGCTG  
 CCCAAGGGAGGACCAGGCCATGTCAGCCATCCAAGACCTTCAAGAGACAGCAGCATCCAGCATGCAGAC  
 CTAGAGTCCACCAAGGCCGGGTGAGATCCCTGGAGAGTCTCCTCCACCAGATGACCTTGGGCCGAGTTA  
 CTGGGACCCAGGAGGCCAAGAGGGGCTGCAGGGCCAGTTGGGTGCCCTGAGGAGAGAACGGGACCAGCT  
 GGAGACCCAAACCAGGGATCTGGAGGCAGCCTATAACAATCTCCTTCGAGATAAGTCGGCTTTAGAGGAA  
 GAGAAGAGGCAGCTGGAACAAGAGAATGAAGATTTGGCCAGGAGGCTAGAAAGCAGCAGCGAGGAGGTA  
 CAAGGCTGCGGAGGGCCAGTGTCTTCCACCCAGTACCCTCTCAGGACATGCTGCCAGGCTCCAGGGA  
 AGTCTCTCAGTGAATTTGGACACGTTGGCCTTCCAGGAATTGAAGTCAGAGTTAACTGAGGTTCTGCT  
 TCCCAAATCTTGAAAGGAAAATCCATCTGGCCGACCCAGGAGCAAAGAAGGAGACAAAGGATGTGGAGCGC  
 TAGTCTGGGTAGGAGAGCCAGTACCCTGAGGACAGCTGAAACAATCGCTGGCAAGTATGGAGTGTGGAT  
 GAGAGACCCCAAGCCACCCACCCCTACACCCAGGAAAGCACATGGAGGATTGACACGGTTGGCAGAGAG  
 ATCCGCCAGGTGTTTGTAGTACAGTACAGTAAGCCAGTTCGAGCAGGGCTATCCTTCCAAGTCCATGTGC  
 TCCCTCGGGCACTGGAGAGCACGGGTGCTGTGGTGTATGCGGGGAGCCTCTATTTCCAGGGGGCTGAGTC  
 CAGAAGTGTGGTCAAGTATGAGCTAGACACGGAGACCGTGAAGGCAGAGAAGGAAATTCCTGGAGCTGGC  
 TACCACGGACACTTCCCGTACGCGTGGGGTGGCTACACAGACATTGACTTAGCTGTGGATGAGAGCGGCC  
 TCTGGGTCACTACAGCACGGAGAAGCCAAGGGGGCCATAGTCTCTCCAAATGAACCCAGCGAACCT  
 GGAACCTTGAGCGTACCTGGGAGACTAACATCCGTAAGCAGTCTGTGGCCAAATGCCTTTGTTATCTGTGGC  
 ATCTTGTACCGGTGAGCAGCTACTCTTCAAGCCATGCAACCGTCAACTTCGCCTACGACACTAAAACGG  
 GGACAGTAAGACCCTGACCATCCCATTCACGAATCGTACAAGTACAGCAGTATGATTGACTACAACCC  
 CCTGGAGAGGAAGCTGTTTGCCTGGGACAACCTCAACATGGTCACCTATGATATCAAGCTCTTGGAGATG

AG**CGGACCG**ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC  
 TGGATTACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

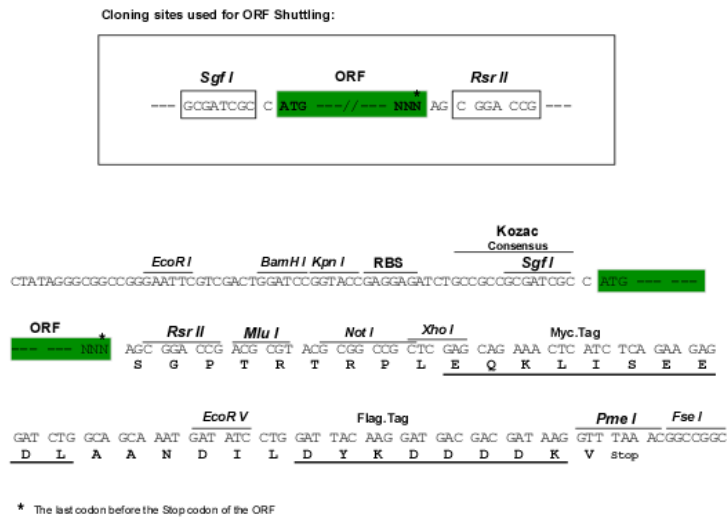
>MR224777 protein sequence  
 Red=Cloning site Green=Tags(s)

MPALHLLFLACLWVMGARTAQFRKANDRSGRCQYTFVAVSPNESSCPREDQAMSAIQDLQRDSSIQHAD  
 LESTKARVRSLESLLHQMTLGRVTGTQEAQEQGLQGLGALRRERDQLETQTRDLEAAYNLLRDKSALEE  
 EKRLQLEQENEDLARRLESSEEVTRLRRGQCPSTQYPSQDMLPGSREVSQWNLDTLAFQELKSELTEVPA  
 SQILKENPSPGRPRSKEGDKGCGALVWVGEVTLRTAETIAGKYGVWMRDPKPTHYPYQESTWRIDTVGTE  
 IRQVFQYQISQFEQGYPSKVHVLPRALESTGAVVYAGSLYFQGAESRTVVRYELDTETVKAKEKEIPGAG  
 YHGHPYAWGGYTDIDLAVDESLWVIYSTEEAKGAIIVLSKLNANLELERTWETNIRKQSVANAFVICG  
 ILYTVSSYSSAHATVNFAYDTKTGTSKTLTIPFTNRYKYSSMIDYNPLERKLFWDNFMVYDIKLLM

**SGP**TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:**

Sgfl-RsrII

**Cloning Scheme:**


**ACCN:** NM\_010865

**ORF Size:** 1473 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.

**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\\_010865.3](#), [NP\\_034995.3](#)

**RefSeq Size:** 2093 bp

**RefSeq ORF:** 1473 bp

**Locus ID:** 17926

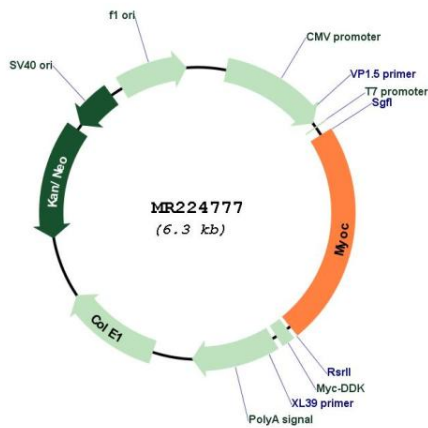
**UniProt ID:** [O70624](#)

**Cytogenetics:** 1 70.29 cM

**MW:** 55.3 kDa

**Gene Summary:** Secreted glycoprotein regulating the activation of different signaling pathways in adjacent cells to control different processes including cell adhesion, cell-matrix adhesion, cytoskeleton organization and cell migration. Promotes substrate adhesion, spreading and formation of focal contacts. Negatively regulates cell-matrix adhesion and stress fiber assembly through Rho protein signal transduction. Modulates the organization of actin cytoskeleton by stimulating the formation of stress fibers through interactions with components of Wnt signaling pathways. Promotes cell migration through activation of PTK2 and the downstream phosphatidylinositol 3-kinase signaling (By similarity). Plays a role in bone formation and promotes osteoblast differentiation in a dose-dependent manner through mitogen-activated protein kinase signaling (PubMed:23629661). Mediates myelination in the peripheral nervous system through ERBB2/ERBB3 signaling (PubMed:23897819). Plays a role as a regulator of muscle hypertrophy through the components of dystrophin-associated protein complex (PubMed:22371502). Involved in positive regulation of mitochondrial depolarization. Plays a role in neurite outgrowth. May participate in the obstruction of fluid outflow in the trabecular meshwork (By similarity).[UniProtKB/Swiss-Prot Function]

**Product images:**



Circular map for MR224777