

Product datasheet for **RN202406**

Myo10 (NM_001107657) Rat Untagged Clone

Product data:

Product Type: Expression Plasmids
Product Name: Myo10 (NM_001107657) Rat Untagged Clone
Tag: Tag Free
Symbol: Myo10
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
Cell Selection: Neomycin
Fully Sequenced ORF: >RN202406 representing NM_001107657
Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGAAGTCATGCAATTCAGCAAGGAGGAAGTTCGGGAAGTTCGAGGTTGCTGGCAGGAATACTGCATC
TCGGCAACATAGAATTTATCACTGCTGGAGGGGCACAGATTTCTTCAAACCGCTTTGGGAGGTCCGGC
AGAGTTACTTGGCTGGACCCAACACAGCTCACAGATGCGCTGACTCAGAGATCCATGTTCTCAGGGGA
GAAGAGATCCTCAGCCTCTCAGTGTTACGAGGCAAGTAGATAGCAGAGACTCACTGGCCATGGCACTTT
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TATGCAAATGAGAAGCTTCAGGAATACTTCAACAAGCACATTTTTCTTTAGAACAATAAGCAATATAGCA
GAGAAGGATTGGTGTGGGAAGATATTGACTGGATAGACAATGGAGAATGCCTAGACTTGATCGAGAAGAA
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AAGTTACACAATCAACATGCTAATAACCACTTTTATGTGAAGCCCGAGTTGCAGTCAACAATTTGGAG
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 CCATGGAGGACAGCAGAAATATGTTTGCCTTGTGAGTACAATGGACAGGTGGACAAGGCCATCGAAAG
 CCGGACTATCGTGGCTGATGCTGGCAAAGTTTGAAGAGTGGCTGCCACGTGCAAGCTGGAGACGCA
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 CTCGAGGAGGTCTATTCTCTGCAGAGACTCAAAGCTCGCATCAGTCAGTCAACCAAAACCTTACCCCGT
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 GGTGGCTCGGCAGAAGGTGGAGGAGGAGCAGATGCTGGACATGTGGATTAAGGAGGAGATCTGCTCGCT
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 TTGATGAGAGGGAGCTGCTCTTTGAGACGAGTGGGTGGTGGACGTGGCCAAGCTCATGAAAGCCTACAT
 CAGCATGATTGTGAAGAAGCGCTACAGCACCACGGGTCTCTGAGCAGCCAGGGCAGCTCCAGGTGA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites:	Sgfl-Mlul
ACCN:	NM_001107657
Insert Size:	5247 bp
OTI Disclaimer:	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
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:	<ol style="list-style-type: none">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:	<u>NM_001107657.1, NP_001101127.1</u>
RefSeq Size:	6862 bp
RefSeq ORF:	5247 bp
Locus ID:	310178
Cytogenetics:	2q22
Gene Summary:	Myosins are actin-based motor molecules with ATPase activity. Unconventional myosins serve in intracellular movements. MYO10 binds to actin filaments and actin bundles and functions as plus end-directed motor. The tail domain binds to membranous compartments containing phosphatidylinositol 3,4,5-trisphosphate or integrins, and mediates cargo transport along actin filaments. Regulates cell shape, cell spreading and cell adhesion. May play a role in neurite outgrowth and axon guidance. In hippocampal neurons it induces the formation of dendritic filopodia by trafficking the actin-remodeling protein VASP to the tips of filopodia, where it promotes actin elongation. Plays a role in formation of the podosome belt in osteoclasts (By similarity). Stimulates the formation and elongation of filopodia. [UniProtKB/Swiss-Prot Function]