

Product datasheet for **RR202406**

Myo10 (NM_001107657) Rat Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Myo10 (NM_001107657) Rat Tagged ORF Clone
Tag: Myc-DDK
Symbol: Myo10
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
Cell Selection: Neomycin
ORF Nucleotide Sequence: >RR202406 representing NM_001107657
Red=Cloning site Blue=ORF Green=Tags(s)

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 GCCCGATCGCC

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Protein Sequence:

>RR202406 representing NM_001107657
Red=Cloning site Green=Tags(s)

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VLHCNADTPEEMHHWITLL QRSKGDTRVEGQEF IVRGWLHKEVKNSPKMSSLK LKKRWFVL THNSLDYYK
SSEKNALKLGT LVLNSLCSVPPDEKIFKETGYWNVTVYGRKHCRYLYTKLL NEATRWSAIQNVDTKA
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KIFNSLQQL ESM S D P I P I I Q G I L Q T G H D L R P L R D E L Y C Q L I K Q T N K V P H P G S V G N L Y S W Q I L T C L S C T F L
PSRGILKYLK FHLKRIREQFPGTEMEKYALFIYESLKKTKCREFVPSRDEIEAL IHRQEMTSTVYCHGGG
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LEEVYSLQRLKARISQSTKTFTPYERLEKRRTSFL EGT LRRSFRGTGTVARQKVEEQMLDMWIKEEICSA
RASIIDKWKKLQVVSQEQA MAKYMALIKEWPGYGSTLFDVECKEGGFPQELWLGVSADAVSVYKRGEKGP
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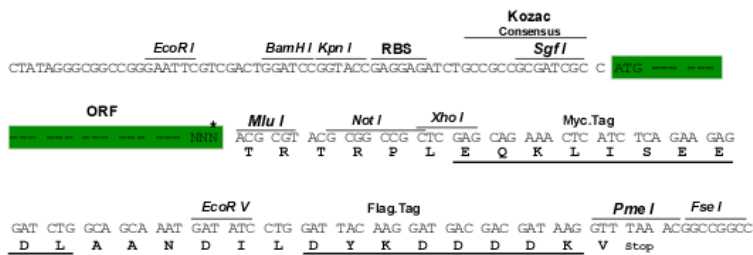
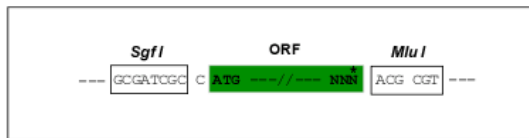
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

SgfI-MluI

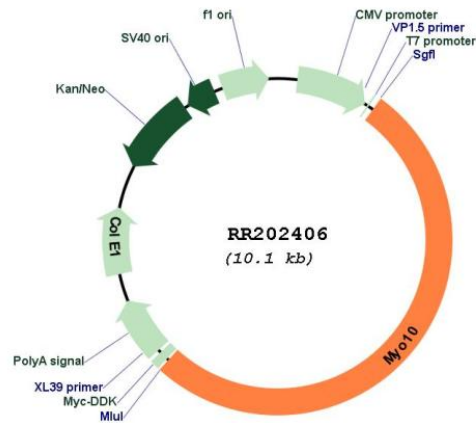
Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

Plasmid Map:



ACCN: NM_001107657

ORF Size: 5244 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:	<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
MW:	201.8 kDa
Gene Summary:	<p>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.</p> <p>[UniProtKB/Swiss-Prot Function]</p>