

Product datasheet for **MC229715**

Myo7a (NM_001256082) Mouse Untagged Clone

Product data:

Product Type: Expression Plasmids
Product Name: Myo7a (NM_001256082) Mouse Untagged Clone
Tag: Tag Free
Symbol: Myo7a
Synonyms: Hdb; Myo7; nfm371; polka; sh-1; sh1; USH1B
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
Cell Selection: Neomycin
Fully Sequenced ORF: >MC229715 representing NM_001256082
Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**GCGATCGCC**

ATGGACCTGAAGTCAGGCCAGGAGTTTGTATGTGCCCATCGGGCCGTGGTGAAGCTCTGCGACTCGGGCC
AGATCCAGGTGGTGGATGATGAAGACAATGAACACTGGATATCCCCTCAGAATGCCACGCACATCAAGCC
AATGCACCCACATCGGTGCACGGCGTGGAGGACATGATCCGCCCTGGGGGATCTCAACGAGGCAGGCATC
CTTCGAAACCTTCTCATTTCGCTACCGGGACCACCTCATCTATACCAGCTGTGGAGGACGGACGTACACAG
GTTCCATCCTGGTGGCCGTGAACCCCTACCAGTGCTCTCCATCTACTCGCCAGAGCACATCCGCCAGTA
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GCACGGATGCCACCATGCTGCATAAGCTGAACTCACAGCACAAAGCTCAATGCCAACTACGTGCCACCCAA
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 CTGGAGAAGAACCAGACACCCTGCATGGGGACATCATCCAGCTGGTCCACTCTTCCCGAAACAAGTTCA
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 AGGACAACGTGGCCACGAACCTCATCTACCAGCAGGTGGTGGCAGGAGTCAAGTTTGGGGAGTACAGGTG
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 CAAGGGAGATTGTGGCCCTGGTCACTATGACCCAGACCAGAGGAGGATGTCGTCCGGCTCCTGCAGCT
 TCGCACAGCAGAGCCAGAGGTGCGCGCCAAGCCCTACACGCTAGAGGAGTTCTCTACGACTACTTCAGG
 CCCCCACCAAGCACACGCTGAGCCGTGTATGGTGTCCAAGGCCCGGGTAAGGACAGGCTGTGGAGCC
 ACACACGAGAGCCCTCAAGCAGGCCCTGCTCAAGAAGATCCTGGGCAGTGAAGAAGTCTCCAGGAAGC

CTGCATGGCCTTTGTAGCTGTGCTCAAGTACATGGGCGACTACCCATCCAAGAGGATGCGATCCGTC AAT
GAGCTCACTGACCAGATCTTTGAGTGGGCACTCAAGGCTGAGCCCCTCAAGGATGAGGCCTACGTGCAGA
TCCTGAAGCAGCTGACTGACAATCACATCAGGTACAGCGAAGAGAGGGGCTGGAACTGCTGTGGCTGTG
CACGGGCTCTTCCCGCCAGCAACATCCTCCTGCCTCATGTTACAGCGGTTTCTGCAGTCCCAGCAAGCAC
TGTCTCTTGCCATTGACTGCCTGCAGAGGCTCCAGAAAGCCCTGAGAAATGGCTCCCGGAAGTACCCTC
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CCTGATGACTGGAACGGTCTATTGTCGCCTACTTCAACAAACATGCGGGGAAGTCCAAGGAGGAAGCCA
AGCTGGCCTTCTCAAACCTCATCTCAAGTGGCCACCTTTGGCTCAGCCTTCTTTGAGGTGAAGCAAAC
TACAGAACCAAACCTCCAGAGATTCTCTTAATTGCCATCAACAAGTACGGGGTACGCCTCATCGATCCC
AGAACCAAGGACATCCTGACTACTCACCCCTTCAACCAAGATCTCCAAGTGGAGTAGTGGAAACACCTACT
TCCACATCACCATTGGGAACTTGGTCCGTGGGAGCAAACCTGCTCTGTGAGACATCGCTGGGATACAAAAT
GGATGATCTTCTGACTTCTACATCAGCCAGATGCTCAGCCATGAGCAAGCAGAGGAACTCCAGGAGT
GGAAGGTGA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites:	SgfI-MluI
ACCN:	NM_001256082
Insert Size:	6519 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).
OTI Annotation:	Clone contains native stop codon, and expresses the complete ORF without any c-terminal tag.
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_001256082.1</u> , <u>NP_001243011.1</u>
RefSeq Size:	7214 bp
RefSeq ORF:	6519 bp

Locus ID: 17921

Cytogenetics: 7 53.57 cM

Gene Summary: Myosins are actin-based motor molecules with ATPase activity. Unconventional myosins serve in intracellular movements. Their highly divergent tails bind to membranous compartments, which are then moved relative to actin filaments. In the retina, plays an important role in the renewal of the outer photoreceptor disks. Plays an important role in the distribution and migration of retinal pigment epithelial (RPE) melanosomes and phagosomes, and in the regulation of opsin transport in retinal photoreceptors. Mediates intracellular transport of RPE65 in the retina pigment epithelium. In the inner ear, plays an important role in differentiation, morphogenesis and organization of cochlear hair cell bundles. Motor protein that is a part of the functional network formed by USH1C, USH1G, CDH23 and MYO7A that mediates mechanotransduction in cochlear hair cells. Required for normal hearing. Involved in hair-cell vesicle trafficking of aminoglycosides, which are known to induce ototoxicity. [UniProtKB/Swiss-Prot Function]

Transcript Variant: This variant (3) has multiple differences, compared to variant 1. These differences result in a distinct 5' UTR and cause translation initiation at a downstream start codon, compared to variant 1. The resulting isoform (3) is shorter than isoform 1. Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.