

## Product datasheet for RC215401

### MYO3A (NM\_017433) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	MYO3A (NM_017433) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	MYO3A
Synonyms:	DFNB30
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC215401 representing NM_017433 Red=Cloning site Blue=ORF Green=Tags(s)

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**Protein Sequence:** >RC215401 representing NM\_017433  
 Red=Cloning site Green=Tags(s)

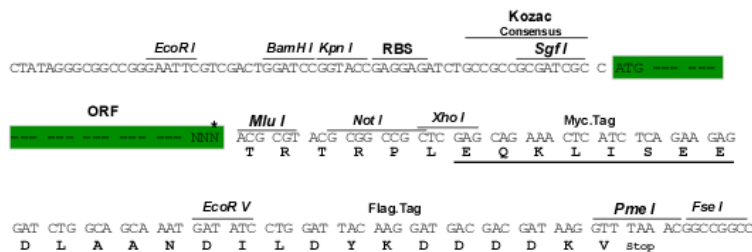
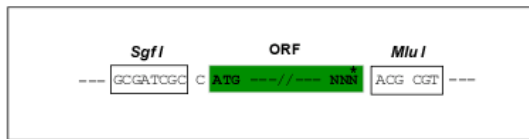
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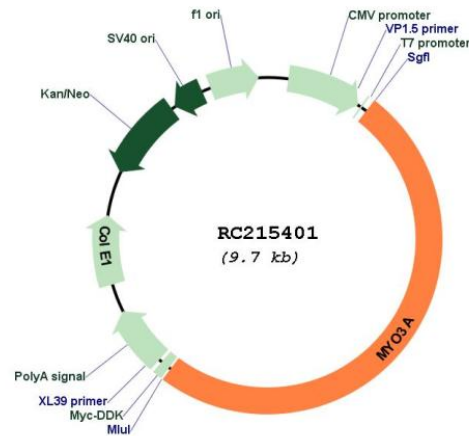
**Restriction Sites:**  
**Cloning Scheme:**

SgfI-MluI

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

**Plasmid Map:**


**ACCN:** NM\_017433

**ORF Size:** 4848 bp

**OTI Disclaimer:** Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at [custsupport@origene.com](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

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\\_017433.5](#)

**RefSeq Size:** 5597 bp

**RefSeq ORF:** 4851 bp

**Locus ID:** 53904

**UniProt ID:** [Q8NEV4](#)

**Cytogenetics:** 10p12.1

**Protein Families:** Druggable Genome, Protein Kinase

**MW:** 186 kDa

**Gene Summary:** The protein encoded by this gene belongs to the myosin superfamily. Myosins are actin-dependent motor proteins and are categorized into conventional myosins (class II) and unconventional myosins (classes I and III through XV) based on their variable C-terminal cargo-binding domains. Class III myosins, such as this one, have a kinase domain N-terminal to the conserved N-terminal motor domains and are expressed in photoreceptors. The protein encoded by this gene plays an important role in hearing in humans. Three different recessive, loss of function mutations in the encoded protein have been shown to cause nonsyndromic progressive hearing loss. Expression of this gene is highly restricted, with the strongest expression in retina and cochlea. [provided by RefSeq, Jul 2008]