

## Product datasheet for MR206556

### Casq2 (NM\_009814) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Casq2 (NM_009814) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Casq2
Synonyms:	AA033488; AW146219; cCSQ; Csq2; ESTM52
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>MR206556 representing NM_009814 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGAAGAGGATTTACCTGCTCATGGTGGGGTTTATCTGCTGTCCCTGAGCGGGGCAGAAGAGGGGCTGA  
ACTTCCCCACGTACGATGGGAAAGACCGAGTGGTCAGCCTTTCTGAGAAGAACCTCAAGCAGATGTTGAA  
GAGATATGATTTGCTCTGTCTATTACCACGAACCTGTGTCTCAGACAAGGTCTCACAAAACAGTTC  
CAGCTGAAGGAGATTGTACTGGAGCTTGTGGCCAGGTCTGGAACATAAAAACATAGGCTTTGTGATGG  
TGGATTCGAGGAAAGAGGCCAAGCTTGCTAAGAGGCTGGGATTCAGTGAAGAAGGAAGCCTGTATGTTCT  
GAAGGGTGACCGCACGATTGAGTTTGACGGGGAGTTCGCAGCAGATGTCTTAGTGAATTTCTCTGGAT  
CTCATTGAAGACCCAGTGGAGATCGTGAATAACAAGCTGGAGGTCCAGGCCTTTGAGCGCATCGAGGACC  
AGACCAAGCTCCTTGGCTTCTTCAAGAATGAGGACTCAGAATATTACAAAGCATTCCAAGAGGCAGCTGA  
ACACTTCCAGCCTTACATCAAGTTCTTTGCCACCTTTGACAAGGCGGTGGCAAAGAAGTTATCCTTGAAG  
ATGAACGAAGTTGGCTTCTATGAGCCATTTATGGATGAGCCCAACGTATCCCTAACAAACCGTACACAG  
AAGAGGAGCTTGTGGAGTTTGTGAAGGAACATCAAAGACCCACCTACGTCGCTTGCGCCAGAGGACAT  
GTTTGAACATGGGAAGACGACTTGAATGGGATCCACATCGTGGCCTTTGCGGAGAAGAGTGACCCAGAT  
GGCTATGAGTTCCTAGAGATCCTGAAACAGGTTGCCCGGACAACACTGACAATCCTGACTTGAGCATCT  
TGTGGATTGACCCAGATGACTTTCCTACTGCTTGTGCTTACTGGGAGAAGACTTTCAAGATTGACCTGTT  
CAAGCCACAGATTGGGGTGGTGAATGTAACCGATGCTGACAGTATCTGGATGGAGATCCCAGATGATGAC  
GACCTGCCACAGCTGAGGAGCTGGAAGACTGGATTGAAGATGTCTTTCTGAAAGATCAACACTGAAG  
ATGATGACAATGAAGATGAAGATGATGATGGTATGACAACGATGACGATGATGATGACGACGATGATAA  
TGATAATTCTGATGAGGATAATGAAGACAGTATGATGACGATGATGACGATGAA

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



**Protein Sequence:** >MR206556 representing NM\_009814  
 Red=Cloning site Green=Tags(s)

MKRIYLLMVGVYLLSLSGAEGLNFPTYDGKDRVVSLSEKNLKQMLKRYDLLCLYHEPVSSDKVVSQKQF  
 QLKEIVLELVAQVLEHKNIGFVMDSRKEAKRLKRLGFSEEGSLYVLKGDRTIEFDGEFAADVLEFLLD  
 LIEDPVEIVNNKLEVQAFERIEDQTKLLGFFKNEDESEYKAFQEAAEHFQPYIKFFATFDKAVAKKLSLK  
 MNEVGFYEPFMDEPNVIPNKPYTEEELVEFVKEHQRPRTLRRRLRPEDMFETWEDDLNGIHIIVAFAEKSDPD  
 GYEFLEILKQVARDNTDNPDLNILWIDPDDFPLLVAWEKTFKIDLFKPQIGVVNVTADSIWMEIPDDD  
 DLPTAELEDWIEDVLSGKINTEDDDDNEDEDDDDGDDNDDDDDDDDNDNSDEDNEDSDDDDDDDE

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mm9046\\_e12.zip](https://cdn.origene.com/chromatograms/mm9046_e12.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_009814

**ORF Size:** 1245 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\\_009814.4](#)

**RefSeq Size:** 2544 bp

**RefSeq ORF:** 1248 bp

**Locus ID:** 12373

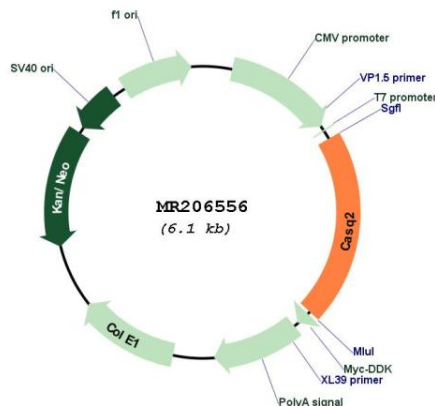
**UniProt ID:** [O09161](#)

**Cytogenetics:** 3 F2.2

**MW:** 48.6 kDa

**Gene Summary:** Calsequestrin is a high-capacity, moderate affinity, calcium-binding protein and thus acts as an internal calcium store in muscle. Calcium ions are bound by clusters of acidic residues at the protein surface, especially at the interface between subunits. Can bind around 60 Ca(2+) ions. Regulates the release of luminal Ca(2+) via the calcium release channel RYR2; this plays an important role in triggering muscle contraction. Plays a role in excitation-contraction coupling in the heart and in regulating the rate of heart beats.[UniProtKB/Swiss-Prot Function]

### Product images:



Circular map for MR206556