

## Product datasheet for **MG206556**

### Casq2 (BC092229) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Casq2 (BC092229) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Casq2
Synonyms:	AA033488; AW146219; cCSQ; Csq2; ESTM52
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>MG206556 representing BC092229 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGAAGAGGATTTACCTGCTCATGGTGGGGTTTATCTGCTGTCCCTGAGCGGGGCAGAAGAGGGGCTGA  
ACTTCCCCACGTACGATGGGAAAGACCGAGTGGTCAGCCTTTCTGAGAAGAACCTCAAGCAGATGTTGAA  
GAGATATGATTTGCTCTGTCTCTATTACCACGAACCTGTGTCTTCAGACAAGGTCTCACAAAACAGTTC  
CAGCTGAAGGAGATTGTACTGGAGCTTGTGGCCAGGTCTGGAACATAAAAACATAGGCTTTGTGATGG  
TGGATTGAGGAAAGAGGCCAAGCTTGCTAAGAGGCTGGGATTCAGTGAAGAAGGAAGCCTGTATGTTCT  
GAAGGGTGACCGCACGATTGAGTTTGACGGGGAGTTCGCAGCAGATGTCTTAGTGAATTTCTCTGGAT  
CTCATTGAAGACCCAGTGGAGATCGTGAATAACAAGCTGGAGGTCCAGGCCTTTGAGCGCATCGAGGACC  
AGACCAAGCTCCTTGGCTTCTTCAAGAATGAGGACTCAGAATATTACAAAGCATTCCAAGAGGCAGCTGA  
ACACTTCCAGCCTTACATCAAGTTCTTTGCCACCTTTGACAAGGCGGTGGCAAAGAAGTTATCCTTGAAG  
ATGAACGAAGTTGGCTTCTATGAGCCATTTATGGATGAGCCCAACGTATCCCTAACAAACCGTACACAG  
AAGAGGAGCTTGTGGAGTTTGTGAAGGAACATCAAAGACCCACCTACGTCGCTTGCGCCAGAGGACAT  
GTTTGAACATGGGAAGACGACTTGAATGGGATCCACATCGTGGCCTTTGCGGAGAAGAGTGACCCAGAT  
GGCTATGAGTTCCTAGAGATCCTGAAACAGGTTGCCCGGACAACACTGACAATCCTGACTGACATGACATCT  
TGTGGATTGACCCAGATGACTTTCCTACTGCTTGTGCTTACTGGGAGAAGACTTTCAAGATTGACCTGTT  
CAAGCCACAGATTGGGGTGGTGAATGTAACCGATGCTGACAGTATCTGGATGGAGATCCCAGATGATGAC  
GACCTGCCACAGCTGAGGAGCTGGAAGACTGGATTGAAGATGTCTTTCTGAAAGATCAACACTGAAG  
ATGATGACAATGAAGATGAAGATGATGATGGTATGACAACGATGACGATGATGATGACGACGATGATAA  
TGATAATTCTGATGAGGATAATGAAGACAGTATGATGACGATGATGACGATGAA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



[View online »](#)

**Protein Sequence:** >MG206556 representing BC092229  
 Red=Cloning site Green=Tags(s)

MKRIYLLMVGVYLLSLSGAEGLNFPTYDGKDRVVSLSEKNLQMLKRYDLLCLYHEPVSSDKVVSQKQF  
 QLKEIVLELVAQVLEHKNIGFVMVDSRKEAKLAKRLGFSEESL YVLKGDRTIEFDGEFAADVLEFLLD  
 LIEDPVEIVNNKLEVQAFERIEDQTKLLGFFKNEDSEYYKAFQEAAEHFQPYIKFFATFDKAVAKKLSLK  
 MNEVGFYEPFMDEPNVIPNKPYTEEELVEFVKEHQRPRTLRRRLRPEDMFETWEDDLNGIHI VAFAEKSDPD  
 GYEFLEILKQVARDNTDNPDL SILWIDPDDFPLL VAYWEKTFKIDLFKPQIGVVNVTADSIWMEIPDD  
 DLPTAEELDWIEDVLSGKINTEDDDDNEDEDDDDGDDNDDDDDDDDNDNSDEDNEDSDDDDDDDE

TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** BC092229

**ORF Size:** 1247 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:** [BC092229](#), [AAH92229](#)

**RefSeq Size:** 2457 bp

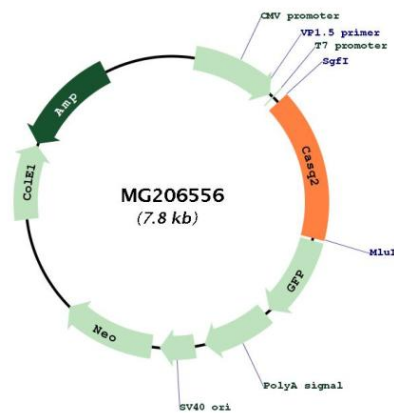
**RefSeq ORF:** 1247 bp

**Locus ID:** 12373

**Cytogenetics:** 3 F2.2

**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 MG206556