

# Recombinant Human Calsequestrin 2 (Cardiac Muscle), His-tagged

**Cat. No.** CASQ2-4248H    **Lot. No.** (See product label)

## SPECIFICATION

**Product Overview** CASQ2 Human Recombinant fused to 37 amino acid His Tag at N-terminal produced in E.Coli is a single, non-glycosylated, polypeptide chain containing 417 amino acids (20-399 a.a.) and having a molecular mass of 48.4 kDa. The CASQ2 is purified by proprietary chromatographic techniques.

**Species** Human

**Source** Human

**ProteinLength** 20-399 a.a.

**Description** CASQ2 belongs to the calsequestrin family and is localized to the sarcoplasmic reticulum in cardiac and slow skeletal muscle cells. CASQ2 is a calcium binding protein that stores calcium for muscle function. The discharge of calcium bound to CASQ2 through a calcium release channel activates muscle contraction. CASQ2 binds 40 to 50 moles of calcium. CASQ2 mutations result in stress-induced polymorphic ventricular tachycardia, also called catecholaminergic polymorphic ventricular tachycardia 2 which is known for its bidirectional ventricular tachycardia that causes cardiac arrest.

**Form** The CASQ2 solution contains 20mM Tris-HCl pH-8, 0.1M NaCl, 1mM DTT and 20% glycerol.

**Purity** Greater than 95% as determined by SDS-PAGE.

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**Physical Appearance** Sterile Filtered clear colorless solution.

**Amino acid sequence**

MRGSHHHHHH GMASMTGGQQ MGRDLYDDDD KDRWGSMEEG LNFPTYDGKD  
 RVVSLSEKNF KQVLKKYDLL CLYYHEPVSS DKVTQKQFQL KEIVLELVAQ  
 VLEHKAIGFV MVDAKKEAKL AKKLGFDDEG SLYILKGDRT IEFDGEFAAD  
 VLVEFLLDLI EDPVEIISSEK LEVQAFERIE DYIKLIGFFK SEDSEYYKAF  
 EEAAEHFQPY IKFFATFDKG VAKKLSLKMN EVDFYEPFMD EPIAIPNKPY  
 TEEELVEFVK EHQRPTLRRL RPEEMFETWE DDLNGIHIVA FAEKSDPDGY  
 EFLEILKQVA RDNTDNPDL ILWIDPDDFP LLVAYWEKTF KIDLFRPQIG  
 VVNVTDADSV WMEIPDDDDL PTAAELEDWI EDVLSGKINT EDDDEDDDDD  
 DNSDEEDNDD SDDDDDE.

**Storage** CASQ2 Recombinant Human although stable at 4°C for 30 days, should be stored desiccated below -20°C for periods greater than 30 days. Please avoid freeze-thaw cycles.

## GENE INFORMATION

**Gene Name** [CASQ2 calsequestrin 2 \(cardiac muscle\) \[ Homo sapiens \]](#)

**Official Symbol** [CASQ2](#)

**Synonyms** CASQ2; calsequestrin 2 (cardiac muscle); PDIB2; FLJ26321; FLJ93514; calsequestrin-2; OTTHUMP00000013749; calsequestrin, cardiac muscle isoform; calsequestrin 2, fast-twitch, cardiac muscle; Calsequestrin-2

**Gene ID** [845](#)

**mRNA Refseq** [NM\\_001232](#)

**Protein Refseq** [NP\\_001223](#)

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<b>MIM</b>	114251
<b>UniProt ID</b>	O14958
<b>Chromosome Location</b>	1p13.3-p11
<b>Pathway</b>	Calcium Regulation in the Cardiac Cell
<b>Function</b>	calcium ion binding

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