

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 EDPVEIISK LEVQAFERIE DYIKLIGFFK SEDSEYYKAF EEAAEHFQPY IKFFATFDKG VAKKLSLKMN EVDFYEPFMD EPIAIPNKPY TEEELVEFVK EHQRPTLRRL RPEEMFETWE DDLNGIHIVA FAEKSDPDGY EFLEILKQVA RDNTDNPDL ILWIDPDDFP LLVAYWEKTF KIDLFRPQIG VVNVTADSV WMEIPDDDDL PTAELEDWI 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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MIM	114251
UniProt ID	O14958
Chromosome Location	1p13.3-p11
Pathway	Calcium Regulation in the Cardiac Cell
Function	calcium ion binding

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