



**Catalog Number:** PR27280

**Product Type:** Recombinant Protein

**Source:** E. Coli

**Amino Acid Sequence:** MRGSHHHHHH GMASMTGGQQ MGRDLYDDDD KDRWGSMEEG LNFPTYDGKD RRVSLSEKNF KQVLKKYDLL CLYYHEPVSS DKVTQKQFQL KEIVLELVAQ VLEHKAIGFV MVDAAKKEAKL AKKLGFDDEG SLYILKGDRT IEFDGEFAAD VLVEFLDLI EDPVEIISK LEVQAFERIE DYIKLIGFFK SEDSEYYKAF EEAAEHFQPY IKFFATFDKG VAKKLSLKMN EVDFYEPFMD EPIAIPNKPY TEEELVEFV EHQRPTRLRRL RPEEMFETWE DDLNGIHIVA FAEKSDPDGY EFLEILKQVA RDNTDNPDL S ILWIDPDDF LLVAYWEKTF KIDLFRPQIG VVNVTDADSV WMEIPDDDDL PTAAELEDWI EDVLSGKINT EDDDEDDDD DNSDEEDNDD SDDDDDE.

**Description/Molecular Mass:** 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.

**Purity:** 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. Greater than 95.0% as determined by:  
(a) Analysis by SDS-PAGE.

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

**Storage:** Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. For long term storage, it is recommended to add a carrier protein (0.1% HSA or BSA). Avoid multiple freeze-thaw cycles.

### FOR RESEARCH USE ONLY

NEUROMICS' REAGENTS ARE FOR IN VITRO AND CERTAIN NON-HUMAN IN VIVO EXPERIMENTAL USE ONLY AND NOT INTENDED FOR USE IN ANY HUMAN CLINICAL INVESTIGATION, DIAGNOSIS, PROGNOSIS, OR TREATMENT. THE ABOVE ANALYSES ARE MERELY TYPICAL GUIDES. THEY ARE NOT TO BE CONSTRUED AS BEING SPECIFICATIONS. ALL OF THE ABOVE INFORMATION IS, TO THE BEST OF OUR KNOWLEDGE, TRUE AND ACCURATE. HOWEVER, SINCE THE CONDITIONS OF USE ARE BEYOND OUR CONTROL, ALL RECOMMENDATIONS OR SUGGESTIONS ARE MADE WITHOUT GUARANTEE, EXPRESS OR IMPLIED, ON OUR PART. WE DISCLAIM ALL LIABILITY IN CONNECTION WITH THE USE OF THE INFORMATION CONTAINED HEREIN OR OTHERWISE, AND ALL SUCH RISKS ARE ASSUMED BY THE USER. WE FURTHER EXPRESSLY DISCLAIM ALL WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

03/08v1

[www.neuromics.com](http://www.neuromics.com)

Neuromics • 5325 West 74<sup>th</sup> Street, Suite 8 • Edina, MN 55439  
phone 866-350-1500 • fax 612-677-3976 • e-mail [pshuster@neuromics.com](mailto:pshuster@neuromics.com)