
Product Data Sheet

Product Name: CASQ2 Human

Cat. No.: GP22975

Batch No.: 1

Product Data

Purity >98%

Source Escherichia Coli.

Physical Appearance solid

Shipping Condition Shipped with Ice Packs.

Synonyms PDIB2; CASQ2; Calsequestrin-2; Calsequestrin cardiac muscle isoform; FLJ26321; FLJ93514.

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 VVNVTADDSV WMEIPDDDDL PTAELEDWI EDVLSGKINT
 EDDDEDDDDD DNSDEEDNDD SDDDDDE.

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

Introduction

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.

Stability

Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer

Caution: Product has not been fully validated for medical applications. For research use only.

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periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please avoid freeze-thaw cycles.

Background

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.

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