

[Go to Product page](#)

Datasheet for ABIN7317197 Calsequestrin Protein

Overview

Quantity:	100 µg
Target:	Calsequestrin (CASQ1)
Origin:	Human
Source:	Escherichia coli (E. coli)
Protein Type:	Recombinant

Product Details

Purpose:	Recombinant Human Calsequestrin-1/CASQ1 Protein
Sequence:	Gln35-Asp396
Characteristics:	A DNA sequence encoding the mature form of human CASQ1 (P31415) (Gln35-Asp396) was expressed with a N-terminal Met.
Purity:	> 80 % as determined by reducing SDS-PAGE.

Target Details

Target:	Calsequestrin (CASQ1)
Alternative Name:	Calsequestrin-1/CASQ1 (CASQ1 Products)
Background:	Background: Calsequestrin-1 is an isoform of calsequestrin. Calsequestrin is a calcium-binding protein of the sarcoplasmic reticulum. It helps hold calcium in the cisterna of the sarcoplasmic reticulum after a muscle contraction, even though the concentration of calcium in the sarcoplasmic reticulum is much higher than in the cytosol. Two forms of calsequestrin have been identified: Calsequestrin-2 and Calsequestrin-1. Calsequestrin-1 is found in fast skeletal

Target Details

muscle. The release of calsequestrin-bound calcium (through a calcium release channel) triggers muscle contraction. The active protein is not highly structured, more than 50 % of it adopting a random coil conformation. When calcium binds there is a structural change whereby the alpha-helical content of the protein increases from 3 to 11 %. Both forms of calsequestrin are phosphorylated by casein kinase 2, but the cardiac form is phosphorylated more rapidly and to a higher degree. Calsequestrin-1 is also secreted in the gut where it deprives bacteria of calcium ions.

Synonym: CASQ,PDIB1,VMCQA

Molecular Weight: 41.8 kDa

UniProt: [P31415](#)

Application Details

Restrictions: For Research Use only

Handling

Format: Lyophilized

Reconstitution: Please refer to the printed manual for detailed information.

Buffer: Lyophilized from sterile 50 mM Tris, 10 % glycerol, pH 7.5

Storage: 4 °C,-20 °C,-80 °C

Storage Comment: Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.