

Recombinant Human calsequestrin 1 Protein, Tag Free

Cat. No. CASQ1-185H Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant human CASQ1 protein (P31415) (Gln 35-Asp 396) without tag was expressed in HEK293.
Species	Human
Source	HEK293
ProteinLength	35-396aa
Description	This gene encodes the skeletal muscle specific member of the calsequestrin protein family. Calsequestrin functions as a luminal sarcoplasmic reticulum calcium sensor in both cardiac and skeletal muscle cells. This protein, also known as calmitine, functions as a calcium regulator in the mitochondria of skeletal muscle. This protein is absent in patients with Duchenne and Becker types of muscular dystrophy. Calsequestrin is a high-capacity, moderate affinity, calcium-binding protein and thus acts as an internal calcium store in muscle. Calcium ions are bound by clusters of acidic residues at the protein surface, often at the interface between subunits. Can bind around 80 Ca (2+) ions. Regulates the release of luminal Ca (2+) via the calcium release channel RYR1; this plays an important role in triggering muscle contraction. Negatively regulates store-operated Ca (2+) entry (SOCE) activity.
Tag	Non
Molecular Mass	42 kDa

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Endotoxin	Less than 1.0 EU/μg by the LAL method.
Purity	>95% as determined by SDS-PAGE.
Storage	Please avoid repeated freeze-thaw cycles. Samples are stable for up to twelve months from date of receipt at -20 to -80 centigrade. It is recommended that aliquot the reconstituted solution to minimize freeze-thaw cycles.
Storage Buffer	Lyophilized from a 0.2 μm filtered solution of PBS, pH7.4, 5% Trehalose, 5% mannitol.
Reconstitution	Reconstitute at 250 μg/mL in sterile water.

GENE INFORMATION

Gene Name	CASQ1 calsequestrin 1 [Homo sapiens (human)]
Official Symbol	CASQ1
Synonyms	CASQ1; calsequestrin 1 (fast-twitch, skeletal muscle); CASQ; calsequestrin-1; calmitine; calsequestrin 1; fast twitch; skeletal muscle; PDIB1; calmitin; calsequestrin, skeletal muscle isoform;
Gene ID	844
mRNA Refseq	NM_001231
Protein Refseq	NP_001222
MIM	114250

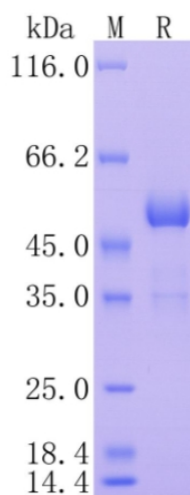
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UniProt ID **P31415**

**Protein on SDS-
PAGE under
reducing (R)
condition.**



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