

CASQ1 Antibody (N-term) Blocking peptide
Synthetic peptide
Catalog # BP5685a**Specification**

CASQ1 Antibody (N-term) Blocking peptide - Product Information

Primary Accession [P31415](#)
Other Accession [NP_001222.2](#)

CASQ1 Antibody (N-term) Blocking peptide - Additional Information

Gene ID 844

Other Names

Calsequestrin-1, Calmitine, Calsequestrin, skeletal muscle isoform, CASQ1, CASQ

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

CASQ1 Antibody (N-term) Blocking peptide - Protein Information

Name CASQ1

Synonyms CASQ

Function

Calsequestrin is a high-capacity, moderate affinity, calcium- binding protein and thus acts as an internal calcium store in muscle (PubMed:<<http://www.uniprot.org/citations/28895244>>28895244). 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 (PubMed:<<http://www.uniprot.org/citations/28895244>>28895244). 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 (PubMed:<<http://www.uniprot.org/citations/27185316>>27185316).

Cellular Location

Endoplasmic reticulum Sarcoplasmic reticulum. Sarcoplasmic reticulum lumen {ECO:0000250|UniProtKB:P07221}. Sarcoplasmic reticulum membrane; Peripheral membrane protein; Luminal side {ECO:0000250|UniProtKB:P07221}. Mitochondrion matrix {ECO:0000250|UniProtKB:O09165}. Note=This isoform of calsequestrin occurs in the sarcoplasmic

reticulum's terminal cisternae luminal spaces of fast skeletal muscle cells. Preferentially forms linear and round aggregates in the endoplasmic reticulum (ER) of resting cells (PubMed:28895244). In a minority of cells, homogeneously detected in the ER lumen (PubMed:28895244). Colocalizes with STIM1 at endoplasmic reticulum in response to a depletion of intracellular calcium (PubMed:27185316). {ECO:0000250|UniProtKB:P07221, ECO:0000269|PubMed:27185316, ECO:0000269|PubMed:28895244}

Tissue Location

Expressed in myoblasts (at protein level).

CASQ1 Antibody (N-term) Blocking peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Blocking Peptides](#)

CASQ1 Antibody (N-term) Blocking peptide - Images**CASQ1 Antibody (N-term) Blocking peptide - Background**

CASQ1 is a mitochondrial calcium-binding protein located in the luminal space of the terminal cisternae of the sarcoplasmic reticulum. The protein binds and putatively stores calcium ions. The protein is absent in patients with Duchenne and Becker types of muscular dystrophy.

CASQ1 Antibody (N-term) Blocking peptide - References

Wilton, S.B., et al. Heart Rhythm 5(5):694-700(2008) Hasstedt, S.J., et al. Ann. Hum. Genet. 72 (PT 2), 163-169 (2008) Sparso, T., et al. Mol. Genet. Metab. 92(3):278-282(2007)