

Anti-Calsequestrin 1 Monoclonal Antibody

Catalog # ABO14661

Product Information

Application	WB, IHC, FC
Primary Accession	P31415
Host	Rabbit
Isotype	Rabbit IgG
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Format	Liquid
Description	Anti-Calsequestrin 1 Monoclonal Antibody . Tested in WB, IHC, Flow Cytometry applications. This antibody reacts with Human, Mouse, Rat.

Additional Information

Gene ID	844
Other Names	Calsequestrin-1, Calmitine, Calsequestrin, skeletal muscle isoform, CASQ1, CASQ
Calculated MW	45160
Application Details	WB 1:1000-1:5000 IHC 1:50-1:200 FC 1:100
Source	Eukaryota
Contents	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.
Clone Names Immunogen	Clone: AEGE-3 A synthesized peptide derived from human Calsequestrin 1 Calsequestrin is a high-capacity, moderate affinity, calcium-binding protein and thus acts as an internal calcium store in muscle. The release of calcium bound to calsequestrin through a calcium release channel triggers muscle contraction. Binds 40 to 50 moles of calcium. Also binds laminin.
Purification	Affinity-chromatography
Storage	Store at -20°C for one year. For short term storage and frequent use, store at 4°C for up to one month. Avoid repeated freeze-thaw cycles.

Protein Information

Name	CASQ1
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Synonyms

CASQ

Function

Calsequestrin is a high-capacity, moderate affinity, calcium-binding protein and thus acts as an internal calcium store in muscle (PubMed:[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:[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:[27185316](#)).

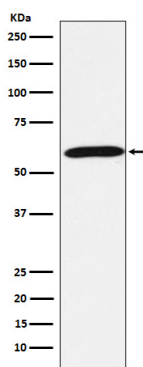
Cellular Location

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).

Images



Western blot analysis of Calsequestrin 1 expression in Human skeletal muscle lysate.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.