

Calsequestrin Recombinant Rabbit mAb

Catalog # AP100022

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	P31415
Other Accession	P31415
Reactivity	Rat, Human, Mouse
Host	Rabbit
Clonality	Recombinant
Calculated MW	45160
Physical State	Liquid
Immunogen	A synthesized peptide derived from human Calsequestrin 1
Epitope Specificity	100-150/396
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	10mM phosphate buffered saline(pH 7.4) with 150mM sodium chloride, 0.05% BSA, 0.02% Proclin300 and 50% glycerol.
SIMILARITY	Belongs to the calsequestrin family.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	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.

Additional Information

Gene ID	844
Other Names	CASQ; CSQ1; PDIB1; VMCQA; CSQ; CSQ-1; sCSQ; CASQ1_HUMAN; CASQ1; Calmitine; Calsequestrin, skeletal muscle isoform; CASQ1_MOUSE; CASQ1_RAT; Aspartactin; Laminin-binding protein; calsequestrin 1; calsequestrin 1 (fast-twitch, skeletal muscle); calsequestrin 1, fast-twitch, skeletal muscle
Dilution	IHC-P=1:50-200,IHC-F=1:50-200,Flow-Cyt=1:50-100,IF=1:50-200
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

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).

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