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CASQ1 antibody - middle region

Rabbit Polyclonal Antibody
Catalog # AI15094

Product Information

Application	WB
Primary Accession	P31415
Other Accession	NM_001231, NP_001222
Reactivity	Human, Mouse, Rat, Rabbit, Pig, Dog, Guinea Pig, Horse, Bovine
Predicted	Human, Mouse, Rat, Rabbit, Pig, Dog, Bovine
Host	Rabbit
Clonality	Polyclonal
Calculated MW	45160

Additional Information

Gene ID	844
Alias Symbol	CASQ, PDIB1
Other Names	Calsequestrin-1, Calmitine, Calsequestrin, skeletal muscle isoform, CASQ1, CASQ
Format	Liquid. Purified antibody supplied in 1x PBS buffer with 0.09% (w/v) sodium azide and 2% sucrose.
Reconstitution & Storage	Add 50 ul of distilled water. Final anti-CASQ1 antibody concentration is 1 mg/ml in PBS buffer with 2% sucrose. For longer periods of storage, store at 20°C. Avoid repeat freeze-thaw cycles.
Precautions	CASQ1 antibody - middle region is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

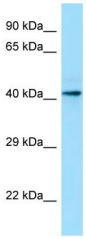
Name	CASQ1
Synonyms	CASQ
Function	Calsequestrin is a high-capacity, moderate affinity, calcium- binding protein and thus acts as an internal calcium store in muscle (PubMed:28895244). Calcium ions are bound by clusters of acidic residues at the protein surface, often at the interface between subunits. Can bind around 80 Ca(2+) ions (PubMed:28895244). Regulates the release of lumenal 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; Lumenal 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).

References

Fujii J.,et al.Somat. Cell Mol. Genet. 16:185-189(1990).
Bataille N.,et al.Biochem. Biophys. Res. Commun. 203:1477-1482(1994).
Ota T.,et al.Nat. Genet. 36:40-45(2004).
Gregory S.G.,et al.Nature 441:315-321(2006).
Mural R.J.,et al.Submitted (SEP-2005) to the EMBL/GenBank/DDBJ databases.

Images



WB Suggested Anti-CASQ1 Antibody Titration: 1.0 µg/ml
Positive Control: Fetal kidney