Anti-CAC1S antibody

Description	Unconjugated Rabbit polyclonal to CAC1S

Model	STJ191630
Host	Rabbit
Reactivity	Human, Mouse, Rat
Applications	ELISA, WB
Immunogen	Synthesized peptide derived from human CAC1S protein.
Immunogen Region	330-410aa
Gene ID	779
Gene Symbol	CACNA1S
Dilution range	WB 1:500-2000 ELISA 1:5000-20000
Specificity	CAC1S Polyclonal Antibody detects endogenous levels of protein.
Tissue Specificity	Skeletal muscle specific.
Purification	CAC1S antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Note	For Research Use Only (RUO).
Protein Name	Voltage-dependent L-type calcium channel subunit alpha-1S Calcium channel, L type, alpha-1 polypeptide, isoform 3, skeletal muscle Voltage-gated calcium channel subunit alpha Cav1.1
Molecular Weight	206 kDa
Clonality	Polyclonal

Conjugation	Unconjugated
Isotype	IgG
Formulation	Liquid form in PBS containing 50% glycerol,and 0.02% sodium azide.
Concentration	1 mg/ml
Storage Instruction	Store at -20°C, and avoid repeat freeze-thaw cycles.
Database Links	HGNC:1397OMIM:114208
Alternative Names	Voltage-dependent L-type calcium channel subunit alpha-1S Calcium channel, L type, alpha-1 polypeptide, isoform 3, skeletal muscle Voltage-gated calcium channel subunit alpha Cav1.1
Function	Pore-forming, alpha-1S subunit of the voltage-gated calcium channel that gives rise to L-type calcium currents in skeletal muscle. Calcium channels containing the alpha-1S subunit play an important role in excitation-contraction coupling in skeletal muscle via their interaction with RYR1, which triggers Ca(2+) release from the sarcplasmic reticulum and ultimately results in muscle contraction. Long-lasting (L-type) calcium channels belong to the 'high-voltage activated' (HVA) group.
Sequence and Domain Family	Each of the four internal repeats contains five hydrophobic transmembrane segments (S1, S2, S3, S5, S6) and one positively charged transmembrane segment (S4). S4 segments probably represent the voltage-sensor and are characterized by a series of positively charged amino acids at every third position. The loop between repeats II and III interacts with the ryanodine receptor, and is therefore important for calcium release from the endoplasmic reticulum necessary for muscle contraction.
Cellular Localization	Cell membrane, sarcolemma. Detected on T-tubules (extensions of the sarcolemma).
Post-translational Modifications	The alpha-1S subunit is found in two isoforms in the skeletal muscle: a minor form of 212 kDa containing the complete amino acid sequence, and a major form of 190 kDa derived from the full-length form by post-translational proteolysis close to Phe-1690. Both the minor and major forms are phosphorylated in vitro by PKA. Phosphorylation by PKA activates the calcium channel.