

## Product datasheet for **AP55388SU-N**

### **CACNA1S (alpha-1) Rabbit Polyclonal Antibody**

#### **Product data:**

Product Type:	Primary Antibodies
Applications:	ELISA, IHC, WB
Recommended Dilution:	<b>ELISA.</b> <b>Western Blot:</b> 1/200-1/2000. <b>Immunohistochemistry:</b> 1/50-1/500.
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	Synthetic peptide derived from C-term domain of Cav1.1 protein
Specificity:	Reacts with Human 212 kDa protein. May cross react with CAC1S proteins from Rat, Mouse and other species due to homology sequences.
Formulation:	State: Serum State: Lyophilized powder Preservative: None
Reconstitution Method:	Restore in distilled water
Conjugation:	Unconjugated
Storage:	Prior to reconstitution store the antibody at -20°C. Store reconstituted antibody at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Gene Name:	calcium voltage-gated channel subunit alpha1 S
Database Link:	<a href="#">Entrez Gene 779 Human Q13698</a>



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**Background:**

Voltage-sensitive calcium channels mediate the entry of calcium into many types of excitable cells and thus play a key role in neurotransmitter release and excitation-contraction (E-C) coupling. The 1,4-dihydropyridines (DHPs) are synthetic organic compounds which can be used to identify the L-type calcium channels that are found in all types of vertebrate muscle, neuronal and neuroendocrine cells. The DHP receptor is part of the L-type calcium channel complex and is thought to be the voltage sensor in E-C coupling. The purified DHP receptor isolated from triads is composed of at least four subunits. The alpha-1 subunit contains the binding site for the DHPs and shows high sequence homology to the voltage gated sodium channel. The alpha-2 subunit is a large glycoprotein associated with the DHP receptor which was first described in skeletal muscle and is also found in high concentrations in other excitable tissues such as cardiac muscle and brain and in low concentrations in most other tissues studied. The other two subunits that co-purify with the DHP receptor are termed beta and gamma.

**Synonyms:**

CACH1, CACN1, CACNL1A3, Cav1.1