

**Cav pan  $\alpha$ 1 Polyclonal Antibody**  
Catalog # AP63668**Specification****Cav pan  $\alpha$ 1 Polyclonal Antibody - Product Information**

Application	IHC
Primary Accession	<a href="#">Q13936</a>
Reactivity	Human, Rat, Mouse
Host	Rabbit
Clonality	Polyclonal

**Cav pan  $\alpha$ 1 Polyclonal Antibody - Additional Information**

Gene ID 775

**Other Names**

Voltage-dependent L-type calcium channel subunit alpha-1C (Calcium channel, L type, alpha-1 polypeptide, isoform 1, cardiac muscle) (Voltage-gated calcium channel subunit alpha Cav1.2)

**Dilution**

IHC~~IHC 1:100-200

**Format**

Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide.

**Storage Conditions**

-20°C

**Cav pan  $\alpha$ 1 Polyclonal Antibody - Protein Information**

Name CACNA1C

Synonyms CACH2, CACN2, CACNL1A1, CCHL1A1

**Function**

Pore-forming, alpha-1C subunit of the voltage-gated calcium channel that gives rise to L-type calcium currents (PubMed: [11741969](http://www.uniprot.org/citations/11741969), PubMed: [12176756](http://www.uniprot.org/citations/12176756), PubMed: [12181424](http://www.uniprot.org/citations/12181424), PubMed: [15454078](http://www.uniprot.org/citations/15454078), PubMed: [15863612](http://www.uniprot.org/citations/15863612), PubMed: [16299511](http://www.uniprot.org/citations/16299511), PubMed: [17071743](http://www.uniprot.org/citations/17071743), PubMed: [17224476](http://www.uniprot.org/citations/17224476), PubMed: [20953164](http://www.uniprot.org/citations/20953164), PubMed: [23677916](http://www.uniprot.org/citations/23677916), PubMed: [24728418](http://www.uniprot.org/citations/24728418), PubMed: [26253506](http://www.uniprot.org/citations/26253506))

target="\_blank">26253506</a>, PubMed:<a href="http://www.uniprot.org/citations/27218670" target="\_blank">27218670</a>, PubMed:<a href="http://www.uniprot.org/citations/29078335" target="\_blank">29078335</a>, PubMed:<a href="http://www.uniprot.org/citations/29742403" target="\_blank">29742403</a>, PubMed:<a href="http://www.uniprot.org/citations/30023270" target="\_blank">30023270</a>, PubMed:<a href="http://www.uniprot.org/citations/30172029" target="\_blank">30172029</a>, PubMed:<a href="http://www.uniprot.org/citations/34163037" target="\_blank">34163037</a>, PubMed:<a href="http://www.uniprot.org/citations/7737988" target="\_blank">7737988</a>, PubMed:<a href="http://www.uniprot.org/citations/8099908" target="\_blank">8099908</a>, PubMed:<a href="http://www.uniprot.org/citations/8392192" target="\_blank">8392192</a>, PubMed:<a href="http://www.uniprot.org/citations/9013606" target="\_blank">9013606</a>, PubMed:<a href="http://www.uniprot.org/citations/9087614" target="\_blank">9087614</a>, PubMed:<a href="http://www.uniprot.org/citations/9607315" target="\_blank">9607315</a>). Mediates influx of calcium ions into the cytoplasm, and thereby triggers calcium release from the sarcoplasm (By similarity). Plays an important role in excitation-contraction coupling in the heart. Required for normal heart development and normal regulation of heart rhythm (PubMed:<a href="http://www.uniprot.org/citations/15454078" target="\_blank">15454078</a>, PubMed:<a href="http://www.uniprot.org/citations/15863612" target="\_blank">15863612</a>, PubMed:<a href="http://www.uniprot.org/citations/17224476" target="\_blank">17224476</a>, PubMed:<a href="http://www.uniprot.org/citations/24728418" target="\_blank">24728418</a>, PubMed:<a href="http://www.uniprot.org/citations/26253506" target="\_blank">26253506</a>). Required for normal contraction of smooth muscle cells in blood vessels and in the intestine. Essential for normal blood pressure regulation via its role in the contraction of arterial smooth muscle cells (PubMed:<a href="http://www.uniprot.org/citations/28119464" target="\_blank">28119464</a>). Long-lasting (L-type) calcium channels belong to the 'high-voltage activated' (HVA) group (Probable).

#### Cellular Location

Cell membrane; Multi-pass membrane protein Cell membrane, sarcolemma {ECO:0000250|UniProtKB:P15381}; Multi-pass membrane protein. Perikaryon {ECO:0000250|UniProtKB:P22002}. Postsynaptic density membrane {ECO:0000250|UniProtKB:P22002}. Cell projection, dendrite {ECO:0000250|UniProtKB:P22002}. Cell membrane, sarcolemma, T-tubule {ECO:0000250|UniProtKB:Q01815}. Note=Colocalizes with ryanodine receptors in distinct clusters at the junctional membrane, where the sarcolemma and the sarcoplasmic reticulum are in close contact. The interaction between RRAD and CACNB2 promotes the expression of CACNA1C at the cell membrane. {ECO:0000250|UniProtKB:P15381}

#### Tissue Location

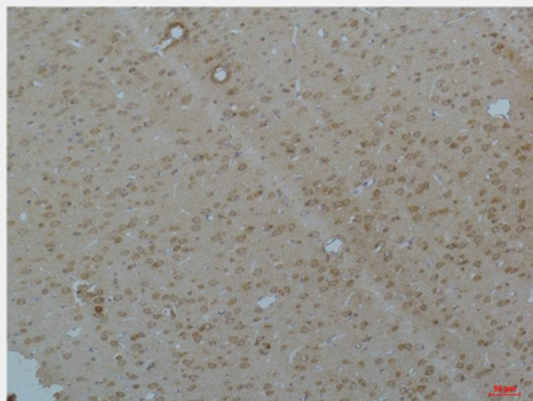
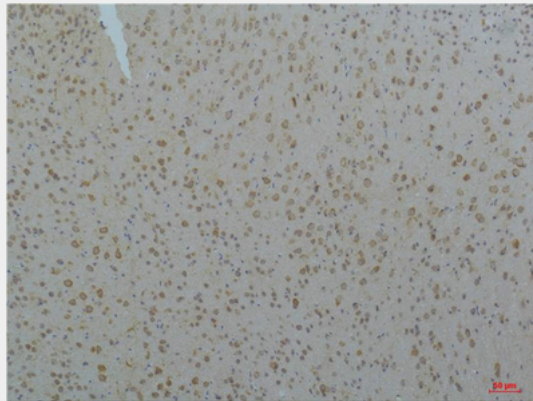
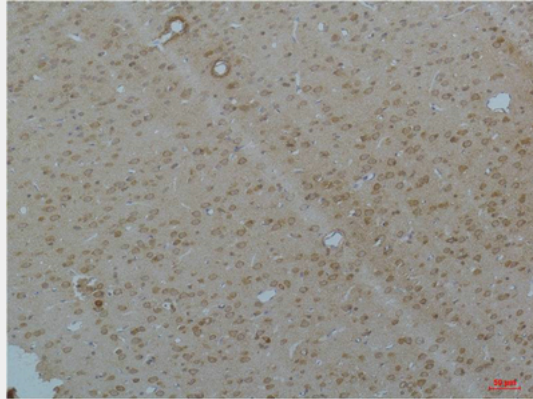
Detected throughout the brain, including hippocampus, cerebellum and amygdala, throughout the heart and vascular system, including ductus arteriosus, in urinary bladder, and in retina and sclera in the eye (PubMed:15454078). Expressed in brain, heart, jejunum, ovary, pancreatic beta-cells and vascular smooth muscle Overall expression is reduced in atherosclerotic vascular smooth muscle.

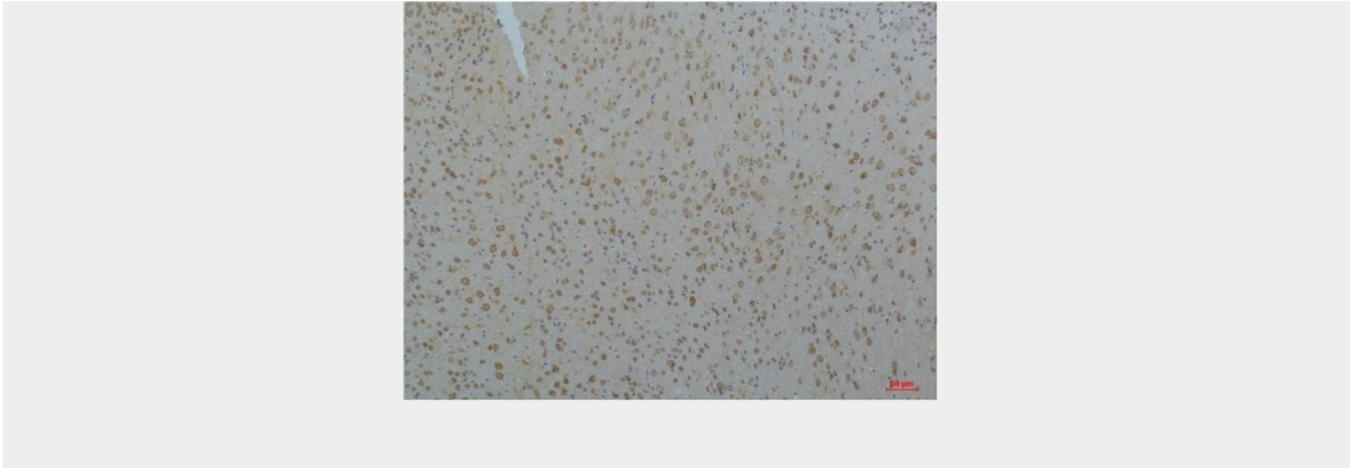
#### Cav pan $\alpha 1$ Polyclonal Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

## Cav pan $\alpha 1$ Polyclonal Antibody - Images





### **Cav pan $\alpha$ 1 Polyclonal Antibody - Background**

Pore-forming, alpha-1C subunit of the voltage-gated calcium channel that gives rise to L-type calcium currents (PubMed:8392192, PubMed:7737988, PubMed:9087614, PubMed:9013606, PubMed:9607315, PubMed:12176756, PubMed:17071743, PubMed:11741969, PubMed:8099908, PubMed:12181424, PubMed:29078335, PubMed:29742403, PubMed:16299511, PubMed:20953164, PubMed:15454078, PubMed:15863612, PubMed:17224476, PubMed:24728418, PubMed:26253506, PubMed:27218670). Mediates influx of calcium ions into the cytoplasm, and thereby triggers calcium release from the sarcoplasm (By similarity). Plays an important role in excitation-contraction coupling in the heart. Required for normal heart development and normal regulation of heart rhythm (PubMed:15454078, PubMed:15863612, PubMed:17224476, PubMed:24728418, PubMed:26253506). Required for normal contraction of smooth muscle cells in blood vessels and in the intestine. Essential for normal blood pressure regulation via its role in the contraction of arterial smooth muscle cells (PubMed:28119464). Long-lasting (L-type) calcium channels belong to the 'high-voltage activated' (HVA) group (Probable).