

**Cav1.3 Antibody**  
**Cav1.3 Antibody, Clone S48A-9**  
**Catalog # ASM10179**

**Specification**

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**Cav1.3 Antibody - Product Information**

Application	IHC
Primary Accession	<a href="#">P27732</a>
Other Accession	<a href="#">NP_058994.1</a>
Host	Mouse
Isotype	IgG2a Kappa
Reactivity	Human, Mouse, Rat
Clonality	Monoclonal

**Description**

Mouse Anti-Rat Cav1.3 Monoclonal IgG2a Kappa

**Target/Specificity**

Detects ~250kDa. No cross-reactivity against Cav1.2.

**Other Names**

alpha-1 polypeptide Antibody, CAC1D\_HUMAN Antibody, CACH3 Antibody, CACN4 Antibody, CACNA1D Antibody, Cacna1d Antibody, CACNL1A2 Antibody, Calcium channel Antibody, Calcium channel L type alpha 1 polypeptide isoform 2 Antibody, Calcium channel neuroendocrine/brain type alpha 1 subunit Antibody, Calcium channel voltage dependent L type alpha 1D subunit Antibody, CCHL1A2 Antibody, isoform 2 Antibody, L type Antibody, Voltage dependent L type calcium channel subunit alpha 1D Antibody, Voltage gated calcium channel alpha 1 subunit Antibody, Voltage gated calcium channel alpha subunit Cav1.3 Antibody, Voltage gated calcium channel subunit alpha Cav1.3 Antibody, Voltage-dependent L-type calcium channel subunit alpha-1D Antibody, Voltage-gated calcium channel subunit alpha Cav1.3 Antibody

**Immunogen**

Fusion protein amino acids 859-875 of rat Cav1.3

**Purification**

Protein G Purified

Storage **-20°C**

**Storage Buffer**

PBS pH7.4, 50% glycerol, 0.09% sodium azide

Shipping Temperature **Blue Ice or 4°C**

**Certificate of Analysis**

1 µg/ml of SMC-301 was sufficient for detection of Cav1.3 in 10 µg of rat brain lysate by colorimetric immunoblot analysis using Goat anti-mouse IgG:HRP as the secondary antibody.

**Cellular Localization**

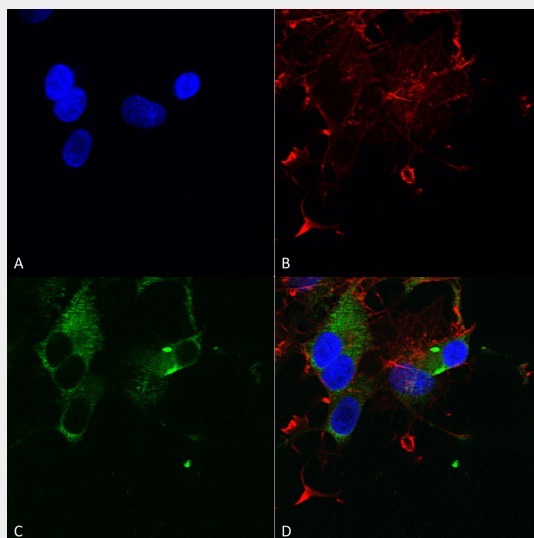
Membrane | Cell Membrane

**Cav1.3 Antibody - Protocols**

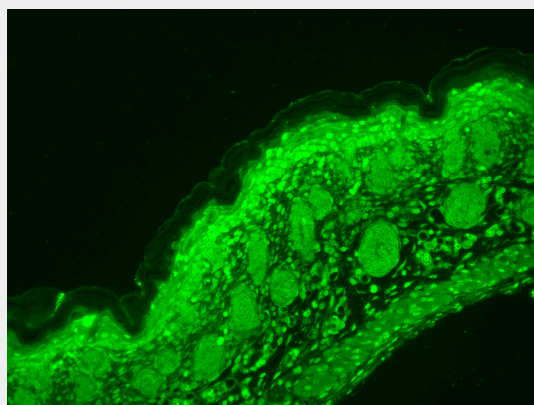
Provided below are standard protocols that you may find useful for product applications.

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

### Cav1.3 Antibody - Images

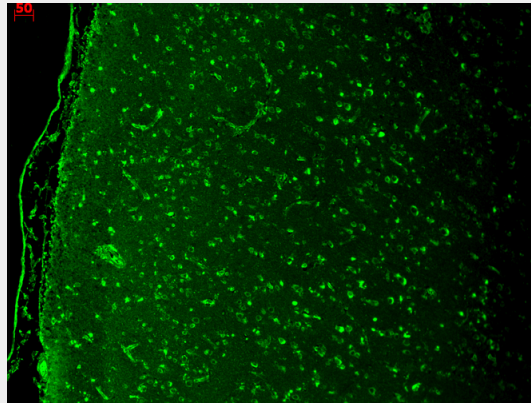


Immunocytochemistry/Immunofluorescence analysis using Mouse Anti-Cav1.3 Monoclonal Antibody, Clone S48 (ASM10179). Tissue: Neuroblastoma cells (SH-SY5Y). Species: Human. Fixation: 4% PFA for 15 min. Primary Antibody: Mouse Anti-Cav1.3 Monoclonal Antibody (ASM10179) at 1:50 for overnight at 4°C with slow rocking. Secondary Antibody: AlexaFluor 488 at 1:1000 for 1 hour at RT. Counterstain: Phalloidin-iFluor 647 (red) F-Actin stain; Hoechst (blue) nuclear stain at 1:800, 1.6mM for 20 min at RT. (A) Hoechst (blue) nuclear stain. (B) Phalloidin-iFluor 647 (red) F-Actin stain. (C) Cav1.3 Antibody (D) Composite.



Immunohistochemistry analysis using Mouse Anti-Cav1.3 Calcium Channel Monoclonal Antibody, Clone S48 (ASM10179). Tissue: backskin. Species: Mouse. Fixation: Bouin's Fixative and paraffin-embedded. Primary Antibody: Mouse Anti-Cav1.3 Calcium Channel Monoclonal Antibody (ASM10179) at 1:100 for 1 hour at RT. Secondary Antibody: FITC Goat Anti-Mouse (green) at 1:50

for 1 hour at RT.



Immunohistochemistry analysis using Mouse Anti-CaV1.3 Calcium Channel Monoclonal Antibody, Clone S48 (ASM10179). Tissue: hippocampus. Species: Human. Fixation: Bouin's Fixative and paraffin-embedded. Primary Antibody: Mouse Anti-CaV1.3 Calcium Channel Monoclonal Antibody (ASM10179) at 1:1000 for 1 hour at RT. Secondary Antibody: FITC Goat Anti-Mouse (green) at 1:50 for 1 hour at RT.

### **Cav1.3 Antibody - Background**

CaV1.3, also known as the calcium channel, voltage-dependent, L type, alpha 1D subunit (CACNA1D), is a human gene. CaV1.3 subunits are primarily expressed in neurons and neuroendocrine cells. Some studies suggest however that CaV1.3 is also found in the atria, and may figure prominently in atrial arrhythmias (1). CaV1.3 also carries the primary sensory receptors of the mammalian cochlea, and are also expressed in the electromotile outer hair cells (2).

### **Cav1.3 Antibody - References**

1. Zhang Z., et al. (2005) Circulation 112: 1936-1944.
2. Johnson S.L. and Marcotti W. (2008) The Journal of Physiology. 586: 1029-1042.