

**Cav3.1 Antibody**  
**Cav3.1 Antibody, Clone S178A-9**  
**Catalog # ASM10239****Specification**

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**Cav3.1 Antibody - Product Information**

Application	<b>WB</b>
Primary Accession	<a href="#">O9WUT2</a>
Other Accession	<a href="#">NP_001106284.1</a>
Host	<b>Mouse</b>
Isotype	<b>IgG1</b>
Reactivity	<b>Human, Mouse, Rat</b>
Clonality	<b>Monoclonal</b>

**Description**

Mouse Anti-Mouse Cav3.1 Monoclonal IgG1

**Target/Specificity**

Detects ~&lt;200kDa. Does not cross-react with Cav3.2.

**Other Names**

CACNA1G Antibody, CaV T1 Antibody, Cav3 1 Antibody, cav3 1c Antibody, KIAA1123 Antibody, MGC117234 Antibody, NBR13 Antibody, voltage gated calcium channel cav3.1 Antibody, calcium channel voltage dependent alpha 1G subunit Antibody, calcium channel voltage dependent T type alpha 1G subunit Antibody, calcium channel voltage dependent T type alpha1G subunit Antibody, voltage dependent calcium channel alpha 1G subunit isoform 11 Antibody, voltage dependent T type calcium channel subunit alpha 1G Antibody, Voltage gated calcium channel subunit alpha Cav3 1 Antibody

**Immunogen**

Fusion protein amino acids 2052-2172 (cytoplasmic C-terminus) of mouse Cav3.1

**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-405 was sufficient for detection of Cav3.1 in 20 µg of rat brain membrane lysate and assayed by colorimetric immunoblot analysis using goat anti-mouse IgG:HRP as the secondary antibody.

**Cellular Localization**

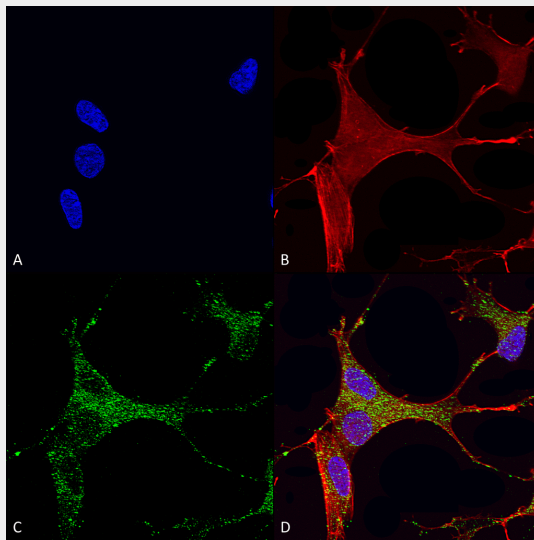
Membrane

**Cav3.1 Antibody - Protocols**

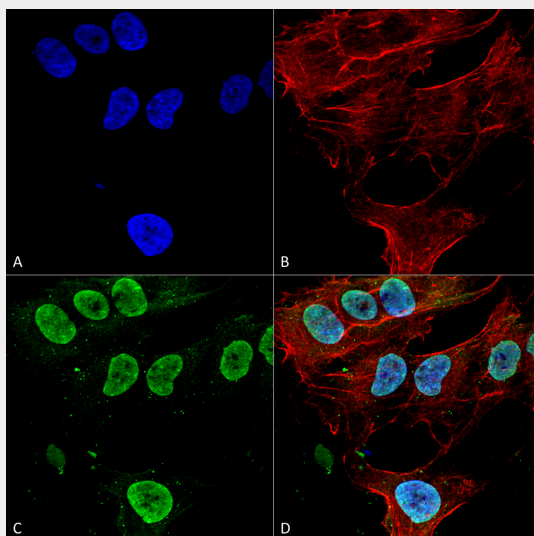
Provided below are standard protocols that you may find useful for product applications.

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

### Cav3.1 Antibody - Images

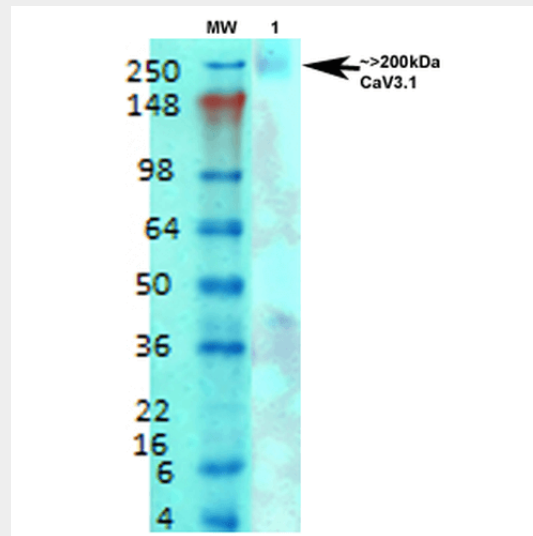


Immunocytochemistry/Immunofluorescence analysis using Mouse Anti-Cav3.1 Monoclonal Antibody, Clone N178A/9 (ASM10239). Tissue: Neuroblastoma cells (SH-SY5Y). Species: Human. Fixation: 4% PFA for 15 min. Primary Antibody: Mouse Anti-Cav3.1 Monoclonal Antibody (ASM10239) at 1:50 for overnight at 4°C with 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) Cav3.1 Antibody (D) Composite.



Immunocytochemistry/Immunofluorescence analysis using Mouse Anti-Cav3.1 Monoclonal Antibody, Clone N178A/9 (ASM10239). Tissue: Neuroblastoma cell line (SK-N-BE). Species: Human.

Fixation: 4% Formaldehyde for 15 min at RT. Primary Antibody: Mouse Anti-Cav3.1 Monoclonal Antibody (ASM10239) at 1:100 for 60 min at RT. Secondary Antibody: Goat Anti-Mouse ATTO 488 at 1:200 for 60 min at RT. Counterstain: Phalloidin Texas Red F-Actin stain; DAPI (blue) nuclear stain at 1:1000, 1:5000 for 60 min at RT, 5 min at RT. Localization: Cell Membrane, Membrane, Cytoplasm, Nucleoplasm. Magnification: 60X. (A) DAPI (blue) nuclear stain. (B) Phalloidin Texas Red F-Actin stain. (C) Cav3.1 Antibody. (D) Composite.



Western Blot analysis of Rat brain membrane lysate showing detection of Cav3.1 Calcium Channel protein using Mouse Anti-Cav3.1 Calcium Channel Monoclonal Antibody, Clone N178A/9 (ASM10239). Primary Antibody: Mouse Anti-Cav3.1 Calcium Channel Monoclonal Antibody (ASM10239) at 1:1000.

### **Cav3.1 Antibody - Background**

Calcium channel CaV3.1 (a1G) is a low-voltage-activated T-type calcium channel. Such T-type channels are expressed throughout the body. In the heart, they may be involved in pacemaker current. In neurons, these channels may play a secondary pacemaker role (1). With the ubiquitous expression, it is not surprising that alterations in channel function have been implicated in disease. Drugs that act to block T-type calcium channels are used as anti-hypertensives, antiepileptic's, and blocking of T-type calcium channels may be involved in the action of some anesthetics and antipsychotics as well (1). Much remains to be determined about the precise cellular localization, in vivo physiological roles, roles in disease states and possible routes to modulate their structure/function to ameliorate effects of disease.

### **Cav3.1 Antibody - References**

1. Perez-Reyes E. (2003). *Physiol. Rev.*, 83: 117-161.