

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

Application	WB, IHC, ICC
Primary Accession	Q9WUT2
Other Accession	NP_001106284.1
Host	Mouse
Isotype	IgG1
Reactivity	Human, Mouse, Rat
Clonality	Monoclonal

Description

Mouse Anti-Mouse Cav3.1 Monoclonal IgG1

Target/Specificity

Detects ~<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.

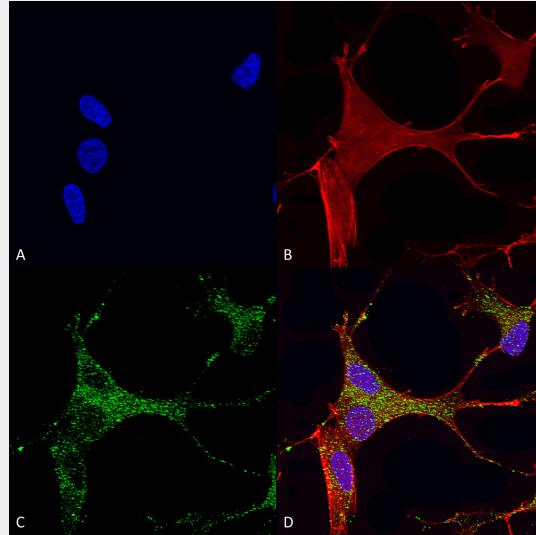
Cellular Localization

Membrane

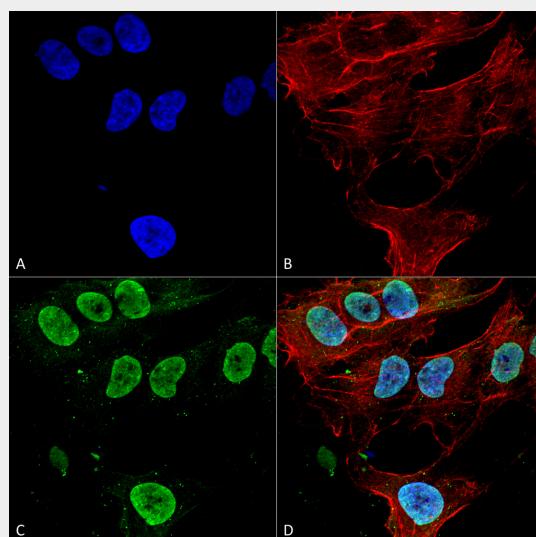
Cav3.1 Antibody - Protocols

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](#)

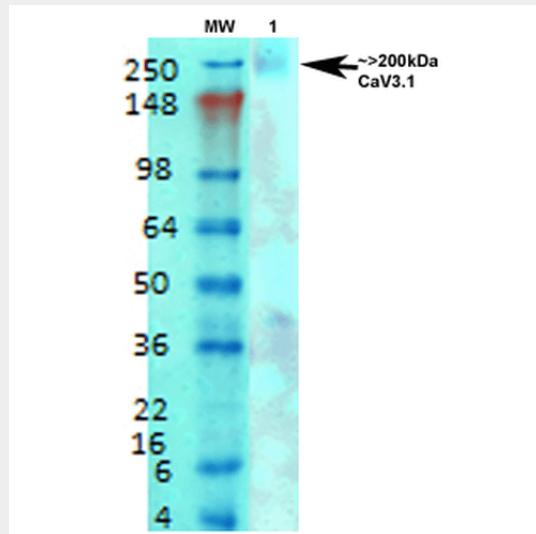
Cav3.1 Antibody - Images

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.