Datasheet for ABIN1027719

anti-CACNA1G antibody (AA 2052-2172)

3 Images

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Overview

Quantity:	100 µg
Target:	CACNA1G
Binding Specificity:	AA 2052-2172
Reactivity:	Mouse
Host:	Mouse
Clonality:	Monoclonal
Application:	Western Blotting (WB), Immunohistochemistry (IHC), Immunofluorescence (IF), Immunocytochemistry (ICC)

Product Details

Immunogen:	Fusion protein amino acids 2052-2172 (cytoplasmic C-terminus) of mouse Cav3.1
Clone:	S178A-9
Isotype:	IgG1
Specificity:	Detects ~<200 kDa. Does not cross-react with Cav3.2.
Cross-Reactivity:	Human, Mouse, Rat
Purification:	Protein G Purified

Target Details

Target:	CACNA1G
Alternative Name:	Cav3.1 (CACNA1G Products)

Target Details

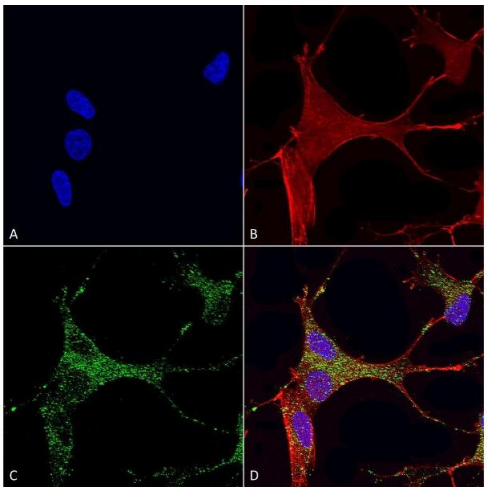
Background:	Calcium channel CaV3.1 (a1G) is a low-voltage-activated T-type calcium channel. Such T-type channels are expressed throughout the body. In the heart, they may be involved in pacemaker current. In neurons, these channels may play a secondary pacemaker role (1). With the ubiquitous expression, 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.
Gene ID:	12291
NCBI Accession:	NP_001106284
UniProt:	Q9WUT2

Application Details

Application Notes:	• WB (1:1000) • ICC/IF (1:100) • optimal dilutions for assays should be determined by the user.
Comment:	1 µg/ml of ABIN1027719 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.
Restrictions:	For Research Use only

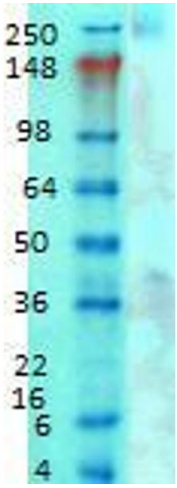
Handling

Format:	Liquid
Concentration:	1 mg/mL
Buffer:	PBS pH 7.4, 50 % glycerol, 0.09 % sodium azide, Storage buffer may change when conjugated
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	-20 °C
Storage Comment:	-20°C



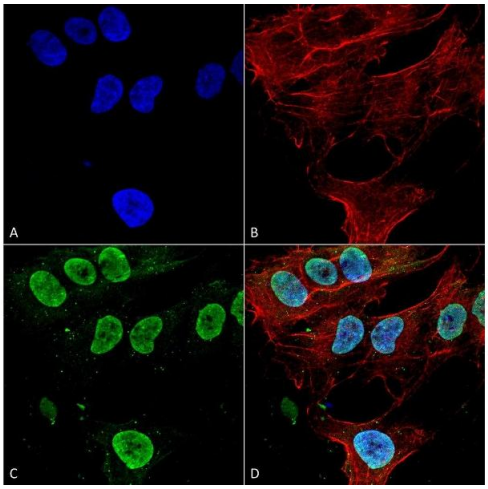
Immunocytochemistry

Image 1. Immunocytochemistry/Immunofluorescence analysis using Mouse Anti-Cav3.1 Monoclonal Antibody, Clone S178A-9 (ABIN1027719). Tissue: Neuroblastoma cells (SH-SY5Y). Species: Human. Fixation: 4 % PFA for 15 min. Primary Antibody: Mouse Anti-Cav3.1 Monoclonal Antibody (ABIN1027719) 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, 1.6 mM for 20 min at RT. (A) Hoechst (blue) nuclear stain. (B) Phalloidin-iFluor 647 (red) F-Actin stain. (C) Cav3.1 Antibody (D) Composite.



Western Blotting

Image 2. Western Blotting rat brain membrane 1 in 1000 Cav3 copy.



Immunocytochemistry

Image 3. Immunocytochemistry/Immunofluorescence analysis using Mouse Anti-Cav3.1 Monoclonal Antibody, Clone S178A-9 (ABIN1027719). 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 (ABIN1027719) 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.

