10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Cav1.2 Antibody
Cav1.2 Antibody, Clone S57-46
Catalog # ASM10178

Specification

Cav1.2 Antibody - Product Information

Application	**IHC, IP, WB**
Primary Accession	P15381
Other Accession	NP_001129994.1
Host	**Mouse**
Isotype	**IgG1**
Reactivity	**Human, Mouse, Rat, Hamster**
Clonality	**Monoclonal**

Description
Mouse Anti-Rabbit Cav1.2 Monoclonal IgG1

Target/Specificity
Detects ~240kDa (varies with cell background due to glycosylation).

Other Names
CACH3 Antibody, CACN4 Antibody, CACNA 1D Antibody, CACNL1A2 Antibody, voltage dependent L type calcium channel subunit alpha 1D Antibody, alpha-1 subunit voltage-dependent calcium channel Antibody, calcium channel voltage-dependent L type alpha 1C subunit1 Antibody, voltage-gated calcium channel alpha subunit Cav1.2 Antibody, calcium channel L type Antibody, alpha 1 polypeptide isoform 1 cardic muscle Antibody, calcium channel cardic dihydropyridine-sensitive alpha-1 subunit Antibody, voltage-gated L-type calcium channel Cav1.2 alpha 1 subunit splice variant 10 Antibody, DHPR alpha-1 subunit Antibody, Voltage-gated calcium channel subunit alpha Cav1.2 Antibody, Calcium channel L type alpha-1 polypeptide isoform 1 cardiac muscle Antibody

Immunogen
Fusion protein amino acids 1507-1733 (intracellular carboxyl terminus) of rabbit Cav1.2

Purification
Protein G Purified

Storage	**-20ºC**

Storage Buffer
PBS pH7.4, 50% glycerol, 0.1% sodium azide

Shipping Temperature	**Blue Ice or 4ºC**

Certificate of Analysis
1 µg/ml of SMC-300 was sufficient for detection of Cav1.2 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

Cav1.2 Antibody - Protocols

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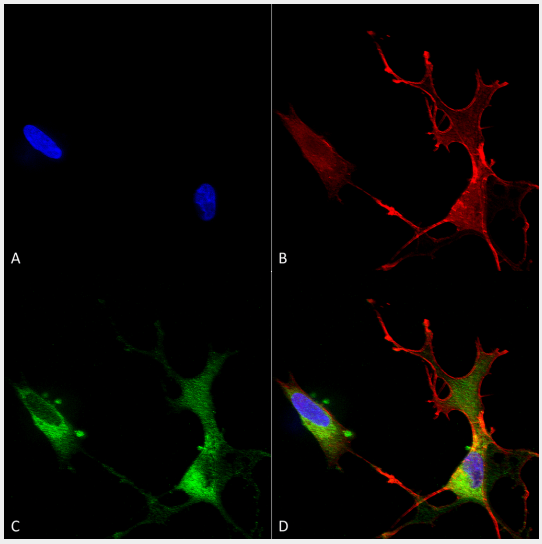
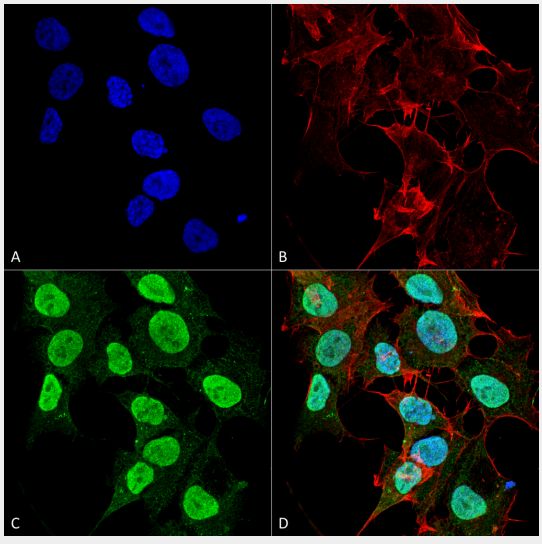
Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Cav1.2 Antibody - Images



Immunocytochemistry/Immunofluorescence analysis using Mouse Anti-Cav1.2 Monoclonal Antibody, Clone S57 (ASM10178). Tissue: Neuroblastoma cells (SH-SY5Y). Species: Human. Fixation: 4% PFA for 15 min. Primary Antibody: Mouse Anti-Cav1.2 Monoclonal Antibody (ASM10178) 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) Cav1.2 Antibody (D) Composite.



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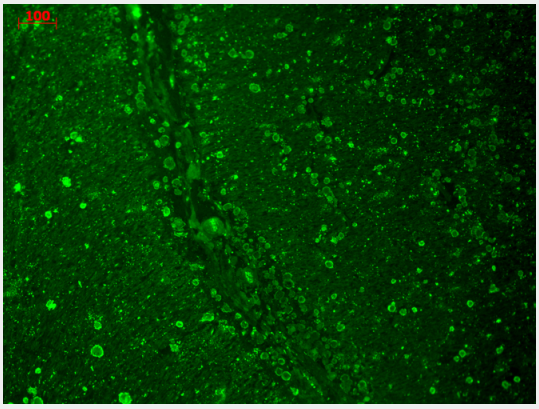
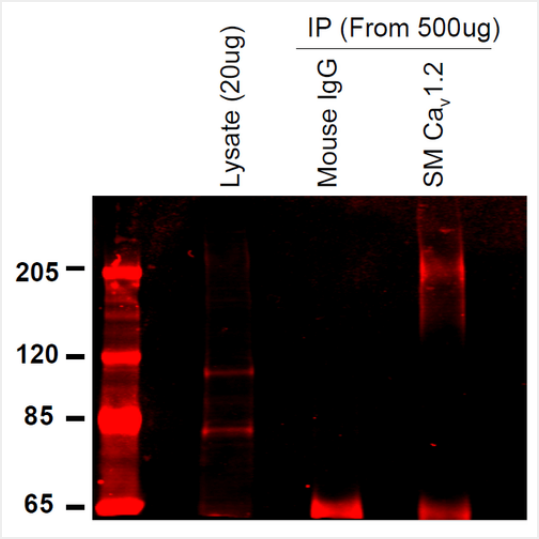
Immunocytochemistry/Immunofluorescence analysis using Mouse Anti-Cav1.2 Monoclonal Antibody, Clone S57 (ASM10178). Tissue: Neuroblastoma cell line (SK-N-BE). Species: Human. Fixation: 4% Formaldehyde for 15 min at RT. Primary Antibody: Mouse Anti-Cav1.2 Monoclonal Antibody (ASM10178) at 1:100 for 60 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) Phalloidin Texas Red F-Actin stain; DAPI (blue) nuclear stain. (B) Anti-Cav1.2 Antibody. (C) Composite. (A) DAPI (blue) nuclear stain. (B) Phalloidin Texas Red F-Actin stain. (C) Cav1.2 Antibody. (D) Composite.



Immunohistochemistry analysis using Mouse Anti-CaV1.2 Calcium Channel Monoclonal Antibody, Clone S57 (ASM10178). Tissue: hippocampus. Species: Human. Fixation: 10% formalin. Primary Antibody: Mouse Anti-CaV1.2 Calcium Channel Monoclonal Antibody (ASM10178) at 1:100 for 1 hour at RT. Secondary Antibody: FITC Goat Anti-Mouse (green) at 1:50 for 1 hour at RT.



Immunoprecipitation analysis using Mouse Anti-CaV1.2 Calcium Channel Monoclonal Antibody, Clone S57 (ASM10178). Tissue: INS-1E cells. Species: Rat. Primary Antibody: Mouse Anti-CaV1.2 Calcium Channel Monoclonal Antibody (ASM10178) at 1:200. Courtesy of: Merrie Mosedale.

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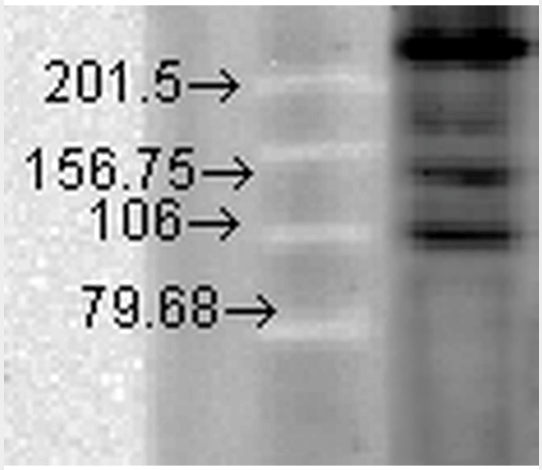
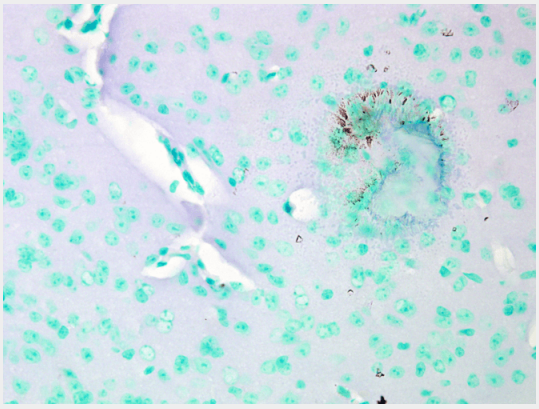


Western Blot analysis of Hamster T-CHO cell lysate showing detection of CaV1.2 Calcium Channel protein using Mouse Anti-CaV1.2 Calcium Channel Monoclonal Antibody, Clone S57 (ASM10178). Primary Antibody: Mouse Anti-CaV1.2 Calcium Channel Monoclonal Antibody (ASM10178) at 1:1000.



Immunohistochemistry analysis using Mouse Anti-CaV1.2 Calcium channel Monoclonal Antibody, Clone S57 (ASM10178). Tissue: Brain Tissue. Species: Mouse. Fixation: Formalin. Primary Antibody: Mouse Anti-CaV1.2 Calcium channel Monoclonal Antibody (ASM10178) at 1:10000 for 12 hours at 4°C. Secondary Antibody: Biotin Goat Anti-Mouse at 1:2000 for 1 hour at RT. Counterstain: Mayer Hematoxylin (purple/blue) nuclear stain at 200 µl for 2 minutes at RT. Magnification: 40x.

Cav1.2 Antibody - Background

Cav1.2 is a cardiac L-type calcium channel, and is important for excitation and contraction of the heart (1). It may be associated with a variant of Long QT syndrome called Timothy's syndrome (2, 3) and also with Brugada syndrome. Some references also suggest it is related to bipolar disease as well (3).

Cav1.2 Antibody - References

1. Splawski I., et al. (2004) Cell. 119 (1): 19-31.
2. Krey J.F., and Dolmetsch R. (2009) Biophysical. 96 (3): 221a-222a.
3. Crotti L., Celano G., Dagradi F. and Schwartz P.J. (2008) Orphanet J Rare Disease 3:18.