10320 Camino Santa Fe, Suite G
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Cav beta 2 Antibody
CavBeta2 Antibody, Clone S8B-1
Catalog # ASM10208

Specification

Cav beta 2 Antibody - Product Information

Application	**IHC, WB**
Primary Accession	Q8VGC3
Other Accession	NP_446303
Host	**Mouse**
Isotype	**IgG1**
Reactivity	**Human, Mouse, Rat**
Clonality	**Monoclonal**
Format	**ATTO 390**

Description
Mouse Anti-Rat Cav beta 2 Monoclonal IgG1

Target/Specificity
Detects ~78 kDa. No cross reactivity against Cavβ1, Cavβ3, Cavβ4.

Other Names
Cacnlb2 Antibody, cacnb2 Antibody, Voltage-dependent L-type calcium channel subunit beta-2 Antibody, CAB2 Antibody

Immunogen
Synthetic peptide amino acids 189-205 of rat CavBeta2

Purification
Protein G Purified

Storage	**-20ºC**

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

Shipping Temperature	**Blue Ice or 4ºC**

Certificate of Analysis
1 µg/ml of SMC-332 was sufficient for detection of Cavβ2 in 10 µg of rat brain lysate by colorimetric immunoblot analysis using Goat anti-mouse IgG:HRP as the secondary antibody

Cellular Localization
Cell Membrane | Sarcolemma

Cav beta 2 Antibody - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot

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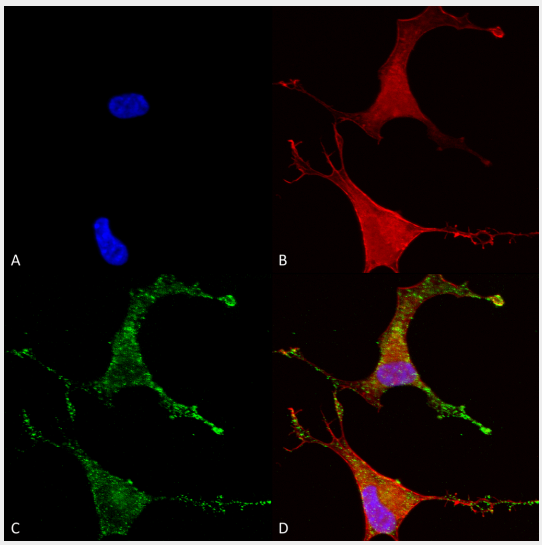
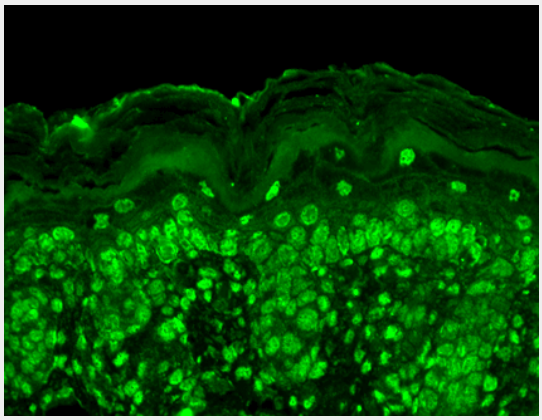
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Cav beta 2 Antibody - Images



Immunocytochemistry/Immunofluorescence analysis using Mouse Anti-Cav beta 2 Monoclonal Antibody, Clone S8B-1 (ASM10208). Tissue: Neuroblastoma cells (SH-SY5Y). Species: Human. Fixation: 4% PFA for 15 min. Primary Antibody: Mouse Anti-Cav beta 2 Monoclonal Antibody (ASM10208) 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) Cav beta 2 Antibody (D) Composite.



Immunohistochemistry analysis using Mouse Anti-Cav Beta2 Calcium Channel Monoclonal Antibody, Clone S8b-1 (ASM10208). Tissue: backskin. Species: Mouse. Fixation: Bouin's Fixative and paraffin-embedded. Primary Antibody: Mouse Anti-Cav Beta2 Calcium Channel Monoclonal Antibody (ASM10208) at 1:100 for 1 hour at RT. Secondary Antibody: FITC Goat Anti-Mouse (green) at 1:50 for 1 hour at RT. Localization: All nuclei. Some nuclei also staining higher up in epidermis.

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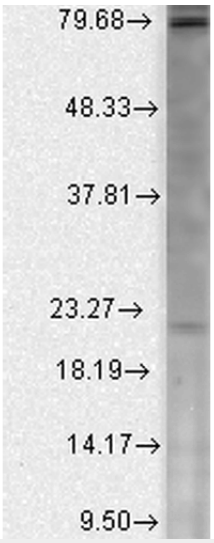
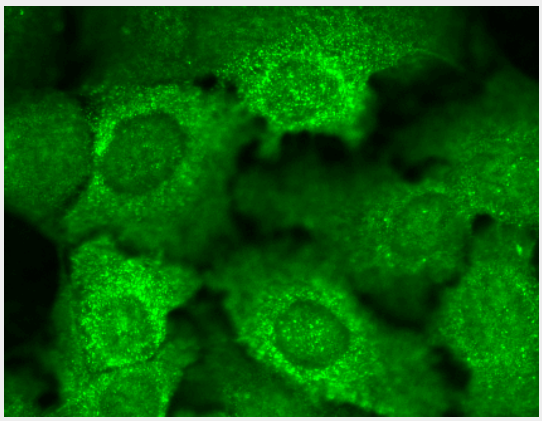


Western Blot analysis of Human Cell line lysates showing detection of Cav Beta2 Calcium Channel protein using Mouse Anti-Cav Beta2 Calcium Channel Monoclonal Antibody, Clone S8b-1 (ASM10208). Load: 15 µg. Block: 1.5% BSA for 30 minutes at RT. Primary Antibody: Mouse Anti-Cav Beta2 Calcium Channel Monoclonal Antibody (ASM10208) at 1:1000 for 2 hours at RT. Secondary Antibody: Sheep Anti-Mouse IgG: HRP for 1 hour at RT.



Immunocytochemistry/Immunofluorescence analysis using Mouse Anti-Cav Beta2 Calcium Channel Monoclonal Antibody, Clone S8b-1 (ASM10208). Tissue: HaCaT cells. Species: Human. Fixation: Cold 100% methanol for 10 minutes at -20°C. Primary Antibody: Mouse Anti-Cav Beta2 Calcium Channel Monoclonal Antibody (ASM10208) at 1:100 for 1 hour at RT. Secondary Antibody: FITC Goat Anti-Mouse (green) at 1:50 for 1 hour at RT. Localization: All cells positive. Bright dottiness located throughout cytoplasm and in nuclei.

Cav beta 2 Antibody - Background

Cav Beat subunits are involved in the transport of the pore forming alpha1 subunit to the plasma membrane (1). They also shield an ER Retention signal on the alpha1 subunit, thereby guiding the pore-forming subunit to the target membrane (2, 3). They also determine the biophysical properties of the calcium channel (3).

Cav beta 2 Antibody - References

1. Dolphin A.C. (2003) J Bioenerg. Biomembr. 35: 599-620.
2. Bichet D., et al. (2000) Neuron. 25: 177-190.
3. Xie M., et al. (2007) J Cell Biol. 178(3): 489-502.