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

Nav1.7 Antibody
Nav1.7 Antibody, Clone S68-6
Catalog # ASM10192

Specification

Nav1.7 Antibody - Product Information

Application	**IHC, WB**
Primary Accession	Q15858
Other Accession	NP_002968.1
Host	**Mouse**
Isotype	**IgG1**
Reactivity	**Human, Mouse, Rat, Hamster**
Clonality	**Monoclonal**

Description
Mouse Anti-Human Nav1.7 Monoclonal IgG1

Target/Specificity
Detects ~230kDa. No cross-reactivity against other Nav channels.

Other Names
ETHA Antibody, hNE Na Antibody, NE NA Antibody, PN1 Antibody, SCN9A Antibody, voltage gated sodium channel subunit alpha Nav1 Antibody, peripheral sodium channel 1 Antibody, neuroendocrine sodium channel Antibody

Immunogen
Fusion protein amino acids 1751-1946 (C-terminus) of human Nav1.7

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-314 was sufficient for detection of Nav1.7 in 10 µg of HEK-293 cell lysate transiently expressing Nav1.7 by colorimetric immunoblot analysis using Goat anti-mouse IgG:HRP as the secondary antibody.

Cellular Localization
Membrane | Synapse

Nav1.7 Antibody - Protocols

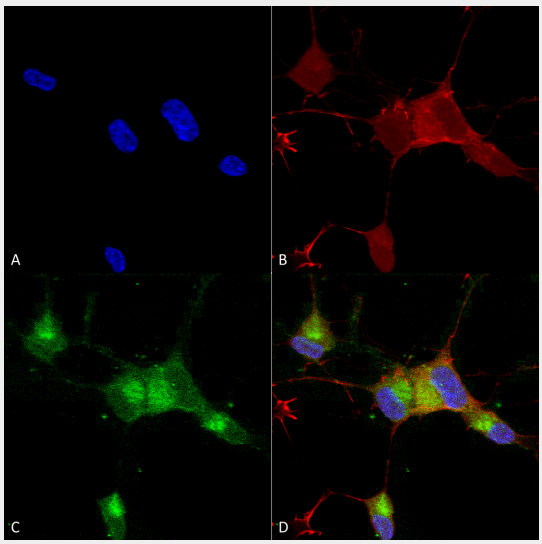
Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides

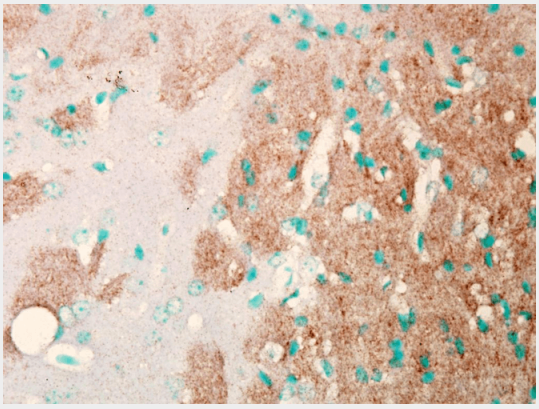
10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

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

Nav1.7 Antibody - Images

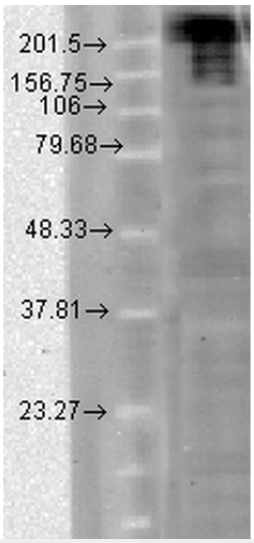


Immunocytochemistry/Immunofluorescence analysis using Mouse Anti-Nav1.7 Monoclonal Antibody, Clone N68/6 (ASM10192). Tissue: Neuroblastoma cells (SH-SY5Y). Species: Human. Fixation: 4% PFA for 15 min. Primary Antibody: Mouse Anti-Nav1.7 Monoclonal Antibody (ASM10192) at 1:100 for overnight at 4°C with 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) Nav1.7 Antibody (D) Composite.

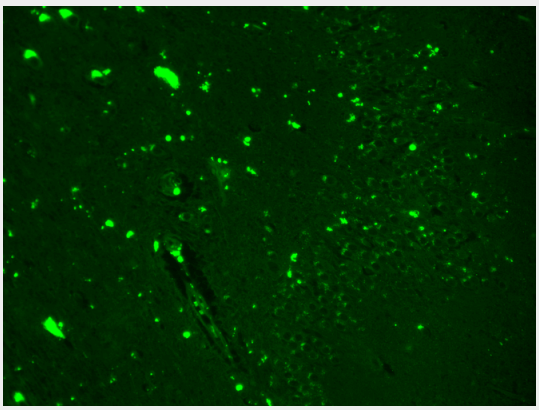


Immunohistochemistry analysis using Mouse Anti-Nav1.7 Sodium Channel Monoclonal Antibody, Clone N68/6 (ASM10192). Tissue: Brain Slice. Species: Mouse. Fixation: Frozen sections. Primary Antibody: Mouse Anti-Nav1.7 Sodium Channel Monoclonal Antibody (ASM10192) at 1:1000. Secondary Antibody: HRP/DAB Detection System: Biotinylated Goat Anti-Mouse, Streptavidin Peroxidase, DAB Chromogen (brown). Counterstain: Mayer Hematoxylin (purple/blue) nuclear stain.

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

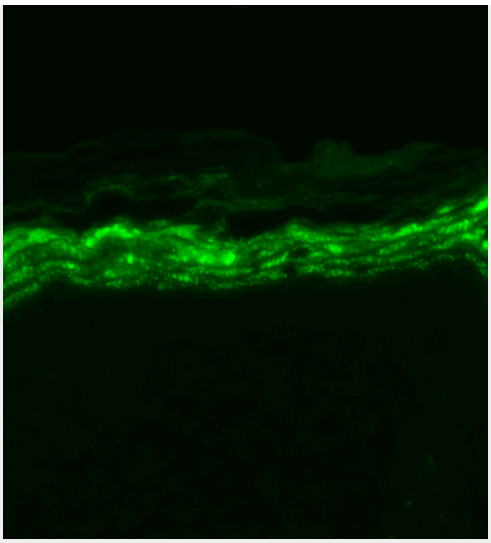


Western Blot analysis of Hamster CHO cells showing detection of Nav1.7 Sodium Channel protein using Mouse Anti-Nav1.7 Sodium Channel Monoclonal Antibody, Clone N68/6 (ASM10192). Load: 15 µg. Block: 1.5% BSA for 30 minutes at RT. Primary Antibody: Mouse Anti-Nav1.7 Sodium Channel Monoclonal Antibody (ASM10192) at 1:1000 for 2 hours at RT. Secondary Antibody: Sheep Anti-Mouse IgG: HRP for 1 hour at RT.



Immunohistochemistry analysis using Mouse Anti-Nav1.7 Sodium Channel Monoclonal Antibody, Clone N68/6 (ASM10192). Tissue: hippocampus. Species: Human. Fixation: Bouin's Fixative and paraffin-embedded. Primary Antibody: Mouse Anti-Nav1.7 Sodium Channel Monoclonal Antibody (ASM10192) at 1:1000 for 1 hour at RT. Secondary Antibody: FITC Goat Anti-Mouse (green) at 1:50 for 1 hour at RT.

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



Immunohistochemistry analysis using Mouse Anti-Nav1.7 Sodium Channel Monoclonal Antibody, Clone N68/6 (ASM10192). Tissue: backskin. Species: Mouse. Fixation: Bouin's Fixative and paraffin-embedded. Primary Antibody: Mouse Anti-Nav1.7 Sodium Channel Monoclonal Antibody (ASM10192) at 1:100 for 1 hour at RT. Secondary Antibody: FITC Goat Anti-Mouse (green) at 1:50 for 1 hour at RT.

Nav1.7 Antibody - Background

Nav1.7 is a voltage-gated sodium channel and plays a critical role in the generation and conduction of action potentials and is thus important for electrical signaling by most excitable cells. Therapeutically, the association of pain insensitivity with the loss of function of a certain sodium channel may have implications. Since Nav1.7 is not present in cardiac muscle or neurons in the central nervous system, blockers of Nav1.7 will not have direct action on these cells and thus can have less side effects than current pain medications. By performing more studies, there is a possibility to develop a new generation of drugs that can reduce the pain intensity in animals (1-3).

Nav1.7 Antibody - References

1. Dray A. (2008) Br. J. Anaesth. 101(1): 48-58.
2. Dray A., Read S.J (2007) Arthritis Res. Ther. 9(3): 212.
3. Samuels M.E., teMorshe R.H., Lynch M.E., Drenth J.P. (2008) Mol Pain. 4: 21.