

**Nav beta3 Antibody**  
**NaVbeta3 Antibody, Clone S396-29**  
**Catalog # ASM10322****Specification**

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**Nav beta3 Antibody - Product Information**

|                   |                             |
|-------------------|-----------------------------|
| Application       | WB                          |
| Primary Accession | <a href="#">O9JK00</a>      |
| Other Accession   | <a href="#">NP_620797.1</a> |
| Host              | Mouse                       |
| Isotype           | IgG2B                       |
| Reactivity        | Human, Mouse, Rat           |
| Clonality         | Monoclonal                  |

**Description**

Mouse Anti-Rat Nav beta 3 Monoclonal IgG2B

**Target/Specificity**

Detects ~40kDa. Does not cross-react with NavBeta1, Navbeta2, or Navbeta4.

**Other Names**

Sodium channel subunit beta-3 Antibody, Scn3b Antibody, KIAA1158 Antibody

**Immunogen**

Fusion protein amino acids 1-215 (full-length) of rat NavBeta3

**Purification**

Protein G Purified

Storage **-20°C**

**Storage Buffer**

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

Shipping Temperature

**Blue Ice or 4°C**

**Certificate of Analysis**

A 1:100 dilution of SMC-490 was sufficient for detection of NavBeta3 in 20 µg of mouse brain lysate by ECL immunoblot analysis using Goat anti-mouse IgG:HRP as the secondary antibody.

**Cellular Localization**

Membrane

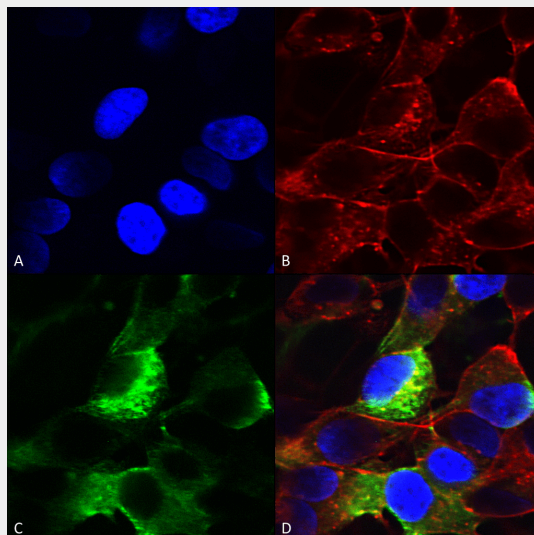
**Nav beta3 Antibody - Protocols**

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

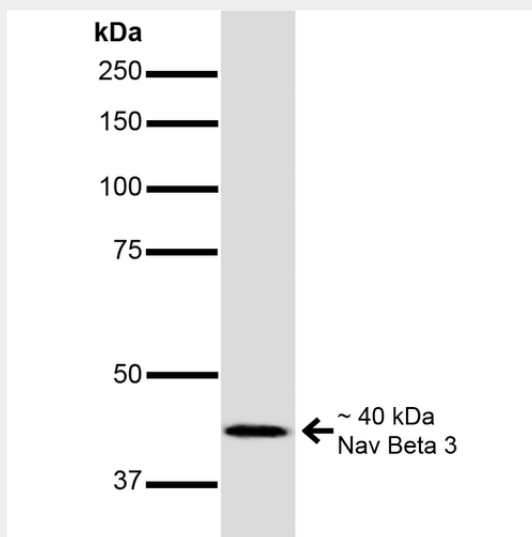
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)

- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

### Nav beta3 Antibody - Images



Immunocytochemistry/Immunofluorescence analysis using Mouse Anti-Nav beta3 Monoclonal Antibody, Clone N396/29 (ASM10322). Tissue: Neuroblastoma cells (SH-SY5Y). Species: Human. Fixation: 4% PFA for 15 min. Primary Antibody: Mouse Anti-Nav beta3 Monoclonal Antibody (ASM10322) at 1:200 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) Nav beta3 Antibody (D) Composite.



Western Blot analysis of Mouse Brain showing detection of ~40 kDa Nav Beta 3 protein using Mouse Anti-Nav Beta 3 Monoclonal Antibody, Clone N396/29 (ASM10322). Lane 1: MW Ladder. Lane 2: Mouse Brain. Load: 20 µg. Primary Antibody: Mouse Anti-Nav Beta 3 Monoclonal Antibody (ASM10322) at 1:1000 for 16 hours at 4°C. Secondary Antibody: Goat Anti-Mouse IgG: HRP at 1:200 for 1 hour at RT. Predicted/Observed Size: ~40 kDa.

### Nav beta3 Antibody - Background

Nav Beta 3 (SCN3B) belongs to the voltage-gated sodium channel group, and modulates channel gating kinetics. It inactivates the sodium channel opening more slowly than its Beta1 subunit. It is also unique in causing persistent sodium currents which are thought to amplify summation of synaptic inputs which is likely to increase the excitability of specific neurons to their individual inputs (2). Its association with neurofascin may target the sodium channels to the nodes of Ranvier of developing axons and retain these channels at the nodes in mature myelinated axons (1, 2). Defects in SCN3B are the cause of Brugada syndrome (3).

#### **Nav beta3 Antibody - References**

1. Genes and mapped phenotypes. (n.d.). Retrieved March 26, 2015, from <http://www.ncbi.nlm.nih.gov/gene/?term=Q9jK00>
2. Qu Y., et al. (2001) Mol Cell Neurosci. 18(5): 570-580.
3. Ishikawa T., et al. (2013) Circ J. 77(4): 956-967.