

## Product datasheet for **TA329046**

### Scn1b Rabbit Polyclonal Antibody

#### Product data:

Product Type:	Primary Antibodies
Applications:	IF, IHC, WB
Recommended Dilution:	WB: 1:200-1:2000; IHC: 1:100-1:3000
Reactivity:	Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	Peptide CKRRSETTAETFTE, corresponding to amino acid residues 43-56 of rat Nav $\beta$ 1 . Extracellular, N-terminus.
Formulation:	Lyophilized. Concentration before lyophilization ~0.8mg/ml (lot dependent, please refer to CoA along with shipment for actual concentration). Buffer before lyophilization: phosphate buffered saline (PBS), pH 7.4, 1% BSA, 0.05% NaN <sub>3</sub> .
Reconstitution Method:	Add 50 ul double distilled water (DDW) to the lyophilized powder.
Purification:	Affinity purified on immobilized antigen.
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Gene Name:	sodium voltage-gated channel beta subunit 1
Database Link:	<a href="#">NP_058984</a> <a href="#">Entrez Gene 20266 Mouse</a> <a href="#">Entrez Gene 29686 Rat</a> <a href="#">Q00954</a>



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**Background:**

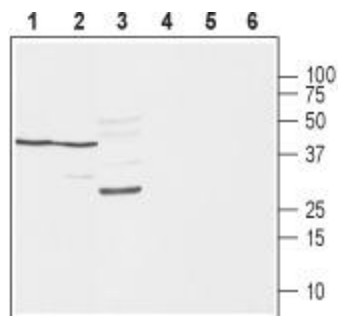
Voltage-gated sodium channels (Nav) are essential for the generation of action potentials and for cell excitability. To date, nine Nav  $\alpha$  subunits have been cloned and named Nav1.1-Nav1.9.2,3 Mammalian sodium channels are heterotrimers, composed of a central, pore-forming  $\alpha$  subunit and two auxiliary  $\beta$ -subunits (Nav  $\beta$ -subunit). The Nav  $\beta$ -subunit gene family consists of four members:  $\beta$ 1 (SCN1B),  $\beta$ 2 (SCN2B),  $\beta$ 3 (SCN3B), and  $\beta$ 4 (SCN4B) having type I topology, containing an extracellular amino-terminus, a single transmembrane segment, and an intracellular carboxyl-terminus. They modulate channel gating, assembly, and cell surface expression in heterologous cell systems. Nav $\beta$ -subunits are cell adhesion molecules of the Ig superfamily, which interact with extracellular matrix, transmembrane signaling, and cell adhesion molecules. In the adult central nervous system and heart, sodium channels are associated with  $\beta$ 1-  $\beta$ 4 subunits, whereas in adult skeletal muscle they are associated only with the  $\beta$ 1 subunit. This association appears to be a late event in sodium channel biosynthesis.

**Synonyms:**

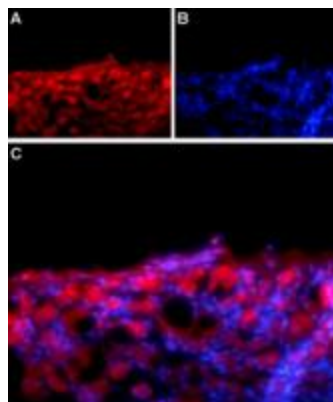
GEFSP1

**Note:**

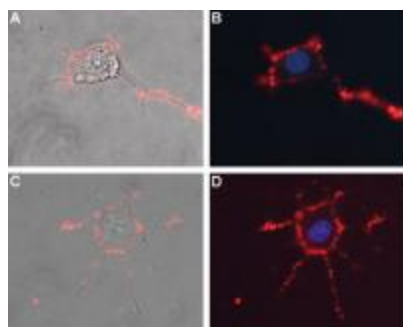
This antibody was tested in live cell imaging. Please see IF/ICC data for detail.

**Product images:**

Western blot analysis of rat brain (lanes 1 and 4), mouse brain (lanes 2 and 5) and rat skeletal muscle (lanes 3 and 6): 1-3. Anti-Nav $\beta$ 1 (extracellular) antibody, (1:400). 4-6. Anti-Nav $\beta$ 1 (extracellular) antibody, preincubated with the control peptide antigen.



Expression of Nav $\beta$ 1 in rat DRG  
Immunohistochemical staining of adult rat dorsal root ganglion (DRG) using Anti-Nav $\beta$ 1 (extracellular) antibody followed by goat anti-rabbit-AlexaFluor-594 secondary antibody. A. Nav $\beta$ 1 labeling (red) appears in the cell bodies of the DRG neurons. B. Nuclear staining using DAPI as the counterstain (blue). C. Merged image of A and B.



Expression of NaV $\beta$ 1 in differentiated rat PC12 cells Immunocytochemical staining of live and intact differentiated rat PC12 cells. PC12 differentiation was induced by mNGF 2.5S (>95%). A, C. Merge of NaV $\beta$ 1 staining using Anti-NaV $\beta$ 1 (extracellular) antibody, (1:50), (red) with live cell imaging. B, D. Merge of NaV $\beta$ 1 staining (1:50), (red) with nuclear staining using DAPI as the counterstain.