

Product datasheet for **TA329034**

Scn8a 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:	Human, Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	Peptide CIANHTGVDIHCCRNGDFQKNG, corresponding to amino acid residues 1042-1061 of rat Nav1.6. Intracellular loop between domains II and III.
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 ₃ .
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 alpha subunit 8
Database Link:	NP_062139 Entrez Gene 6334 Human Entrez Gene 20273 Mouse Entrez Gene 29710 Rat O88420



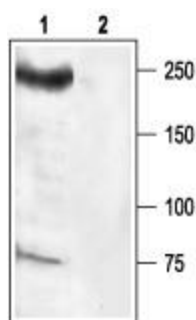
[View online »](#)

Background:

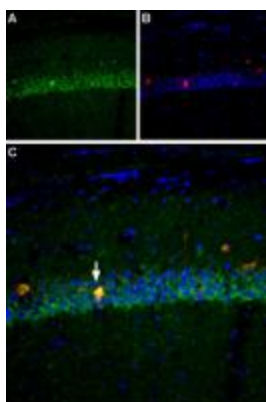
Voltage-gated sodium channels (NaV) are essential for the generation of action potentials and for cell excitability. NaV channels are activated in response to depolarization and selectively allow flow of Na⁺ ions. To date, nine NaV α subunits have been cloned and named NaV1.1-NaV1.9.4-5 The NaV channels are classified into two groups according to their sensitivity to Tetrodotoxin (TTX): TTX-sensitive (NaV1.1, NaV1.2, NaV1.3, NaV1.4, NaV1.6 and NaV1.7) and TTX-resistant (NaV1.5, NaV1.8 and NaV1.9). Mammalian sodium channels are heterotrimers, composed of a central, pore-forming α subunit and two auxiliary β subunits. Expression of the α subunit isoform is developmentally regulated and tissue specific. Sodium channels in the adult central nervous system and heart contain β 1 through β 4 subunits, whereas sodium channels in adult skeletal muscle have only the β 1 subunit. NaV1.6 is highly expressed in adult brain and localized at high density in nodes of Ranvier and axon initial segments and at lower density in dendrites and cell bodies of some neurons. NaV1.6 channels are also expressed at high levels in cerebellar Purkinje neurons.

Synonyms:

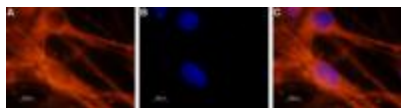
CerIII; MED; NaCh6; Nav1.6; PN4

Product images:

Western blot analysis of rat brain membrane: 1. Anti-Nav1.6 antibody, (1:200). 2. Anti-Nav1.6 antibody, preincubated with the control peptide antigen.



Expression of Nav1.6 in mouse hippocampus. Immunohistochemical staining of mouse hippocampus using Anti-Nav1.6 antibody. A. Nav1.6 (green) is robustly expressed in the CA1 pyramidal layer (white arrows). B. Staining with mouse anti-parvalbumin (red), a marker of interneurons. C. merged image of panels A and B reveals that Nav1.6 appears in some interneurons (arrow) but is not restricted to interneurons. DAPI is used as the counterstain.



Expression of Nav1.6 in rat DRG primary culture. Immunocytochemical staining of paraformaldehyde-fixed and permeabilized DRG primary culture. A. Staining using Anti-Nav1.6 antibody, (1:200) followed by goat anti-rabbit-AlexaFluor-555 secondary antibody. B. Nuclear staining using the cell-permeable dye Hoechst 33342. C. Merged image of panels A and B.