abcam

Product datasheet

Anti-Nav1.8/SCN10A antibody ab63331

2 References 2 Images

Overview

Product name	Anti-Nav1.8/SCN10A antibody
Description	Rabbit polyclonal to Nav1.8/SCN10A
Host species	Rabbit
Tested applications	**Suitable for:** ICC, WB, IHC-Fr
Species reactivity	**Reacts with:** Rat
Immunogen	Synthetic peptide corresponding to Nav1.8/SCN10A aa 1892-1956.
General notes	The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing. If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
Storage buffer	Constituents: PBS, Whole serum
Purity	Whole antiserum
Clonality	Polyclonal
Isotype	IgG

Applications

The Abpromise guarantee	Our **Abpromise guarantee** covers the use of ab63331 in the following tested applications.

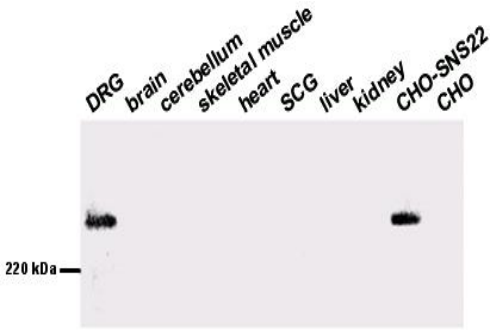
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
ICC		Use at an assay dependent concentration.
WB		1/4000. Predicted molecular weight: 217 kDa.
IHC-Fr		Use at an assay dependent concentration.

Target

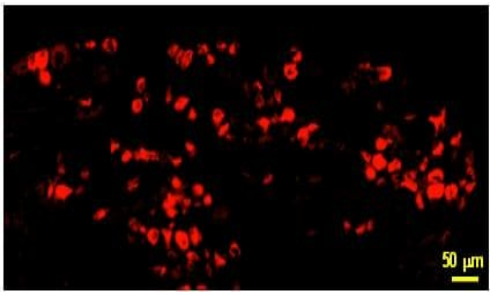
Function	Tetrodotoxin-resistant channel that mediates the voltage-dependent sodium ion permeability of excitable membranes. Assuming opened or closed conformations in response to the voltage difference across the membrane, the protein forms a sodium-selective channel through which sodium ions may pass in accordance with their electrochemical gradient. Plays a role in neuropathic pain mechanisms.
Tissue specificity	Expressed in the dorsal root ganglia and sciatic nerve.
Involvement in disease	Episodic pain syndrome, familial, 2
Sequence similarities	Belongs to the sodium channel (TC 1.A.1.10) family. Nav1.8/SCN10A subfamily. Contains 1 IQ domain.
Domain	The sequence contains 4 internal repeats, each with 5 hydrophobic segments (S1,S2,S3,S5,S6) and one positively charged segment (S4). Segments S4 are probably the voltage-sensors and are characterized by a series of positively charged amino acids at every third position.
Post-translational modifications	Ubiquitinated by NEDD4L; which promotes its endocytosis. Phosphorylation at Ser-1451 by PKC in a highly conserved cytoplasmic loop slows inactivation of the sodium channel and reduces peak sodium currents.
Cellular localization	Cell membrane. It can be translocated to the cell membrane through association with S100A10.

Images



Western blot - Anti-Nav1.8/SCN10A antibody (ab63331)

Western blot analysis. A single band of strong NaV1.8/SCN10A-like immunoreactivity at approximately 240 kDa in the membrane fraction of rat DRG is shown. Note that membrane fractions of rat whole brain, cerebellum, skeletal muscle, heart, superior cervical ganglia, liver and kidney showed no detectable immunoreactivity. Membrane extract from CHO-SNS22 (a cell line stably transfected with rat NaV1.8/SCN10A cDNA) showed strong immunoreactivity at the same size with DRG. Non-transfected CHO cells did not show any bands.



Immunohistochemistry (Frozen sections) - Anti-Nav1.8/SCN10A antibody (ab63331)

Immunohistochemistry was performed on 2 week old rat lumber DRG sections. NaV1.8/SCN10A-like immunoreactivity can be detected only in small diameter (<30 um) neurons.

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