

Product datasheet

Anti-Nav1.8/SCN10A antibody [S134] ab93616

Recombinant

★★★★☆ [1 Abreviews](#) [7 References](#) [4 Images](#)

Overview

Product name	Anti-Nav1.8/SCN10A antibody [S134]
Description	Mouse monoclonal [S134] to Nav1.8/SCN10A
Host species	Mouse
Specificity	No cross reactivity against other Nav channels.
Tested applications	Suitable for: ICC, ICC/IF, IHC-Fr, WB, IHC-P, Flow Cyt
Species reactivity	Reacts with: Mouse, Rat, Human, Monkey
Immunogen	Recombinant fragment within Rat Nav1.8/SCN10A aa 1700 to the C-terminus. The exact immunogen sequence used to generate this antibody is proprietary information. If additional detail on the immunogen is needed to determine the suitability of the antibody for your needs, please contact our Scientific Support team to discuss your requirements. Database link: Q62968
Positive control	WB: COS cell lysate transiently expressing Nav1.8/SCN10A. Flow Cyt: SH-SY5Y cells. IHC-P: Mouse backskin tissue. ICC: HaCaT cells
General notes	<p>The clone number has been updated from S134-12 to N134/12, both clone numbers name the same antibody clone.</p> <p>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.</p> <p>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</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at -20°C. Stable for 12 months at -20°C.
Storage buffer	Preservative: 0.09% Sodium azide Constituents: 50% Glycerol, PBS

Purity	Protein G purified
Clonality	Monoclonal
Clone number	S134
Isotype	IgG2a

Applications

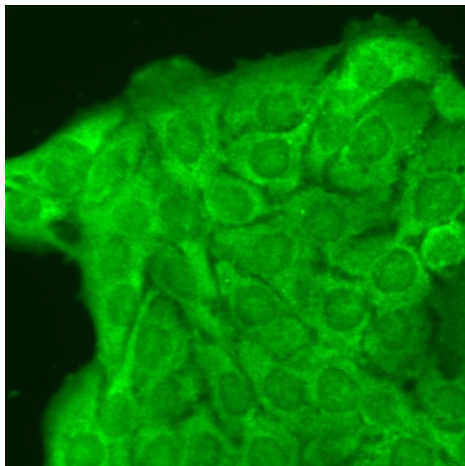
The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab93616 in the following tested applications.

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.
ICC/IF		Use at an assay dependent concentration.
IHC-Fr		Use at an assay dependent concentration.
WB		Use a concentration of 1 - 10 µg/ml. Predicted molecular weight: 220 kDa.
IHC-P	★★★★☆ (1)	Use a concentration of 0.1 - 1 µg/ml.
Flow Cyt		Use 0.5µg for 10 ⁶ cells. ab170191 - Mouse monoclonal IgG2a, is suitable for use as an isotype control with this antibody.

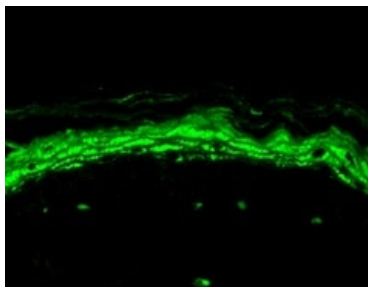
Target

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.



Immunocytochemistry/ Immunofluorescence - Anti-Nav1.8/SCN10A antibody [S134] (ab93616)

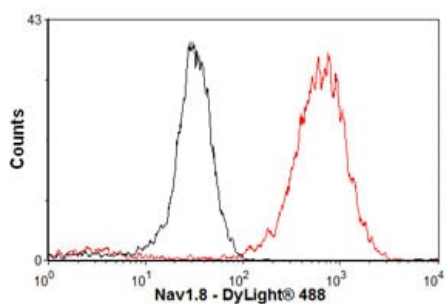
Immunofluorescent analysis of 100% methanol-fixed (10 minutes at -20°C) HaCaT (human keratinocytes) cells labelling Nav1.8/SCN10A with ab93616 at 1/100 dilution, followed by Goat Anti-Mouse (FITC) secondary antibody at 1/50 dilution (Green). Fluorescence image showing cytoplasmic staining and some dull nuclear staining on HaCaT cell line.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Nav1.8/SCN10A antibody [S134] (ab93616)

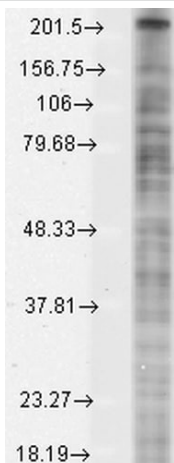
Paraffin-embedded mouse backskin tissue stained for Nav1.8/SCN10A using ab93616 at 1/100 dilution in immunohistochemical analysis.

Fixation: Bouin's Fixative. Secondary Antibody: FITC Goat Anti-Mouse (green) at 1/50 dilution for 1 hour at room temperature.



Flow Cytometry - Anti-Nav1.8/SCN10A antibody [S134] (ab93616)

Overlay histogram showing SH-SY5Y cells stained with ab93616 (red line). The cells were fixed with 80% methanol (5 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab93616, 0.5µg/1x10⁶ cells) for 30 min at 22°C. The secondary antibody used was DyLight[®] 488 goat anti-mouse IgG (H+L) ([ab96879](#)) at 1/500 dilution for 30 min at 22°C. Isotype control antibody (black line) was mouse IgG2a [ICIGG2A] ([ab91361](#), 1µg/1x10⁶ cells) used under the same conditions. Acquisition of >5,000 events was performed.



Western blot - Anti-Nav1.8/SCN10A antibody [S134]
(ab93616)

Anti-Nav1.8/SCN10A antibody [S134] (ab93616) at 1/1000 dilution
+ Monkey COS cell lysate transiently expressing Nav1.8/SCN10A.
at 15 µg

Secondary

Sheep Anti-Mouse IgG: HRP

Predicted band size: 220 kDa

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