

SCN1A Antibody (Center)
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP22326c**Specification**

SCN1A Antibody (Center) - Product Information

Application	WB, FC,E
Primary Accession	P35498
Other Accession	P04774 , A2APX8
Reactivity	Human
Predicted	Mouse, Rat
Host	Rabbit
Clonality	polyclonal
Isotype	Rabbit IgG
Calculated MW	228972

SCN1A Antibody (Center) - Additional Information**Gene ID** 6323**Other Names**

Sodium channel protein type 1 subunit alpha, Sodium channel protein brain I subunit alpha, Sodium channel protein type I subunit alpha, Voltage-gated sodium channel subunit alpha Nav1.1, SCN1A, NAC1, SCN1

Target/Specificity

This SCN1A antibody is generated from a rabbit immunized with a KLH conjugated synthetic peptide between 481-515 amino acids from the Central region of human SCN1A.

Dilution

WB~~1:2000

FC~~1:25

E~~Use at an assay dependent concentration.

Format

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

SCN1A Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

SCN1A Antibody (Center) - Protein Information

Name SCN1A ([HGNC:10585](#))

Synonyms NAC1, SCN1

Function Pore-forming subunit of Nav1.1, a voltage-gated sodium (Nav) channel that directly mediates the depolarizing phase of action potentials in excitable membranes. Navs, also called VGSCs (voltage-gated sodium channels) or VDSCs (voltage-dependent sodium channels), operate by switching between closed and open conformations depending on the voltage difference across the membrane. In the open conformation they allow Na(+) ions to selectively pass through the pore, along their electrochemical gradient. The influx of Na(+) ions provokes membrane depolarization, initiating the propagation of electrical signals throughout cells and tissues (PubMed:[14672992](#)). By regulating the excitability of neurons, ensures that they respond appropriately to synaptic inputs, maintaining the balance between excitation and inhibition in brain neural circuits (By similarity). Nav1.1 plays a role in controlling the excitability and action potential propagation from somatosensory neurons, thereby contributing to the sensory perception of mechanically-induced pain (By similarity).

Cellular Location

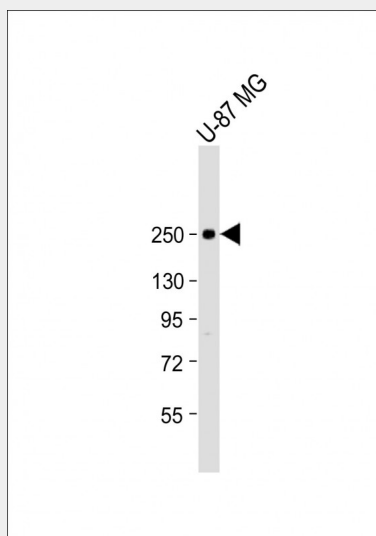
Cell membrane; Multi-pass membrane protein

SCN1A Antibody (Center) - Protocols

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

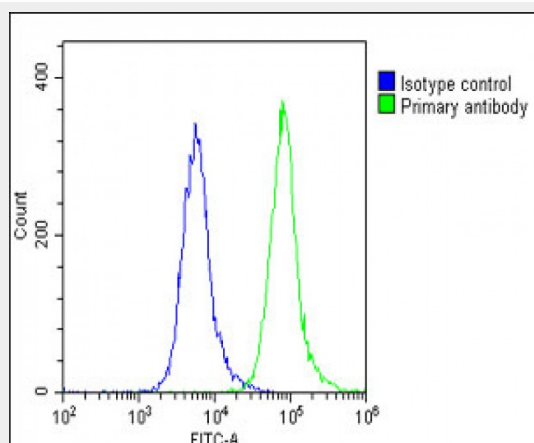
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

SCN1A Antibody (Center) - Images



Anti-SCN1A Antibody (Center) at 1:2000 dilution + U-87 MG whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000

dilution. Predicted band size : 229 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



Overlay histogram showing U-87 MG cells stained with AP22326c (green line). The cells were fixed with 2% paraformaldehyde (10 min) and then permeabilized with 90% methanol for 10 min. The cells were then incubated in 2% bovine serum albumin to block non-specific protein-protein interactions followed by the antibody (AP22326c, 1:25 dilution) for 60 min at 37°C. The secondary antibody used was Goat-Anti-Rabbit IgG, DyLight® 488 Conjugated Highly Cross-Adsorbed (1583138) at 1/200 dilution for 40 min at 37°C. Isotype control antibody (blue line) was rabbit IgG1 (1 µg/1x10⁶ cells) used under the same conditions. Acquisition of >10,000 events was performed.

SCN1A Antibody (Center) - Background

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 Na(+) ions may pass in accordance with their electrochemical gradient.

SCN1A Antibody (Center) - References

- Escayg A., et al. Nat. Genet. 24:343-345 (2000).
- Jeong S.-Y., et al. Submitted (JAN-2000) to the EMBL/GenBank/DDBJ databases.
- Sugawara T., et al. Submitted (JUL-2001) to the EMBL/GenBank/DDBJ databases.
- Ouchida M., et al. Submitted (OCT-2002) to the EMBL/GenBank/DDBJ databases.
- Hillier L.W., et al. Nature 434:724-731 (2005).