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SCN1A Antibody (Center)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP22326c

Product Information

Application	WB, FC, E
Primary Accession	P35498
Other Accession	P04774
Reactivity	Human
Predicted	Rat, Mouse, Bovine, Canine, Rabbit, Chicken
Host	Rabbit
Clonality	polyclonal
Isotype	Rabbit IgG
Clone Names	RB57630
Calculated MW	228972

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 0.05% (V/V) Proclin 300. 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.

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

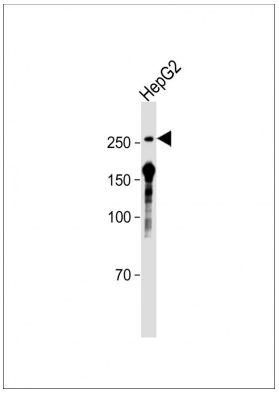
Background

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.

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).

Images



All lanes: Anti-SCN1A Antibody (Center) at 1:1000 dilution + HepG2 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary: Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (ASP1615) at 1/15000 dilution. Observed band size: 250 KDa Blocking/Dilution buffer: 5% NFDM/TBST.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.