10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Anti-Nav-pan Antibody

Catalog # AP51498

Product Information

Application	WB, IHC
Primary Accession	P35498
Other Accession	Q99250, Q9NY46, P35499, Q14524, Q9UQD0, Q15858, Q9Y5Y9, Q9UI33
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	228972

Additional Information

Gene ID	6323
Other Names	SCN1A; NAC1; SCN1; 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; SCN2A; NAC2; SCN2A1; SCN2A2; Sodium channel protein type 2 subunit alpha; HBSC II; Sodium channel protein brain II subunit alpha; Sodium channel protein type II subunit alpha; Voltage-gated sodium channel subunit alpha Nav1.2; SCN3A; KIAA1356; NAC3; Sodium channel protein type 3 subunit alpha; Sodium channel protein brain III subunit alpha; Sodium channel protein type III subunit alpha; Voltage-gated sodium channel subtype III; Voltage-gated sodium channel subunit alpha Nav1.3; SCN4A; Sodium channel protein type 4 subunit alpha; SkM1; Sodium channel protein skeletal muscle subunit alpha; Sodium channel protein type IV subunit alpha; Voltage-gated sodium channel subunit alpha Nav1.4; SCN5A; Sodium channel protein type 5 subunit alpha; HH1; Sodium channel protein cardiac muscle subunit alpha; Sodium channel protein type V subunit alpha; Voltage-gated sodium channel subunit alpha Nav1.5; SCN8A; MED; Sodium channel protein type 8 subunit alpha; Sodium channel protein type VIII subunit alpha; Voltage-gated sodium channel subunit alpha Nav1.6; SCN9A; NENA; Sodium channel protein type 9 subunit alpha; Neuroendocrine sodium channel; hNE-Na; Peripheral sodium channel 1; PN1; Sodium channel protein type IX subunit alpha; Voltage-gated sodium channel subunit alpha Nav1.7; SCN10A; Sodium channel protein type 10 subunit alpha; Peripheral nerve sodium channel 3; PN3; hPN3; Sodium channel protein type X subunit alpha; Voltage-gated sodium channel subunit alpha Nav1.8; SCN11A; SCN12A; SNS2; Sodium channel protein type 11 subunit alpha; Peripheral nerve sodium channel 5; PN5; Sensory neuron sodium channel 2; Sodium channel protein type XI subunit alpha; Voltage-gated sodium channel subunit alpha Nav1.9; hNaN
Target/Specificity	KLH-conjugated synthetic peptide encompassing a sequence within the center region of human Nav1.1. The exact sequence is proprietary.
Dilution	WB~~WB (1/500 - 1/1000) IHC~~1:100~500

Format	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

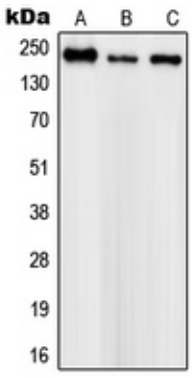
Protein Information

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

References

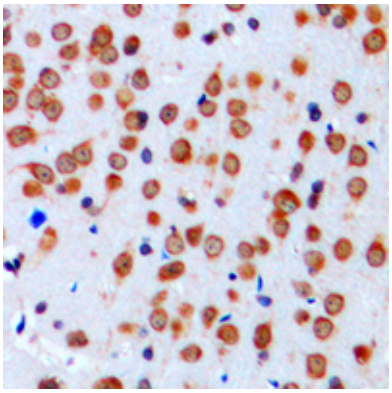
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Images



Western blot analysis of Nav-pan expression in SHSY5Y (A), mouse brain (B), PC12 (C) whole cell lysates.
(Predicted band size: 227 kD; Observed band size: 230 kD)

Immunohistochemical analysis of Nav-pan staining in human brain formalin fixed paraffin embedded tissue



section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

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