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Na+ CP type IXα Polyclonal Antibody

Catalog # AP71150

Product Information

Application	WB, IHC-P, IF, ICC, E
Primary Accession	Q15858
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	226372

Additional Information

Gene ID	6335
Other Names	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
Dilution	WB~~Western Blot: 1/500 - 1/2000. Immunohistochemistry: 1/100 - 1/300. ELISA: 1/40000. Not yet tested in other applications. IHC-P~~N/A IF~~1:50~200 ICC~~N/A E~~N/A
Format	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide.
Storage Conditions	-20℃

Protein Information

Name	SCN9A (HGNC:10597)
Synonyms	NENA
Function	Pore-forming subunit of Nav1.7, a voltage-gated sodium (Nav) channel that directly mediates the depolarizing phase of action potentials in excitable membranes (PubMed:38381792, PubMed:40768348). 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 (PubMed:38381792, PubMed:40768348). The influx of Na(+) ions provokes membrane depolarization, initiating the propagation of electrical signals throughout cells and tissues (PubMed:15385606, PubMed:16988069, PubMed:17145499, PubMed:17167479, PubMed:19369487, PubMed:24311784,

PubMed:25240195, PubMed:26680203, PubMed:7720699). Nav1.7 plays a crucial role in controlling the excitability and action potential propagation from nociceptor neurons, thereby contributing to the sensory perception of pain (PubMed:17145499, PubMed:17167479, PubMed:19369487, PubMed:24311784).

Cellular Location

Cell membrane; Multi-pass membrane protein. Cell projection, neuron projection. Cell projection, axon. Note=Localizes to neuron terminals (PubMed:30765606, PubMed:30795902). Also detected at Nodes of Ranvier (PubMed:30795902).

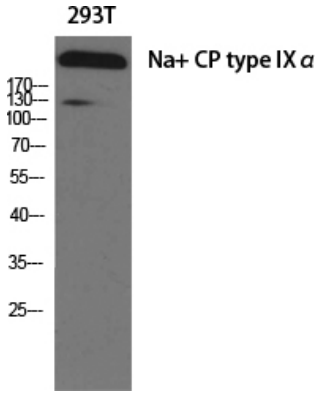
Tissue Location

Expressed strongly in dorsal root ganglion, with only minor levels elsewhere in the body, smooth muscle cells, MTC cell line and C-cell carcinoma. Also expressed in vagus nerves within the head and neck region (PubMed:31647222). Isoform 1 is expressed preferentially in the central and peripheral nervous system. Isoform 2 is expressed preferentially in the dorsal root ganglion

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 (PubMed:7720699, PubMed:17167479, PubMed:25240195, PubMed:26680203, PubMed:15385606, PubMed:16988069, PubMed:17145499, PubMed:19369487, PubMed:24311784). It is a tetrodotoxin-sensitive Na(+) channel isoform (PubMed:7720699). Plays a role in pain mechanisms, especially in the development of inflammatory pain (PubMed:17167479, PubMed:17145499, PubMed:19369487, PubMed:24311784).

Images



Western Blot analysis of various cells using Na+ CP type IXα Polyclonal Antibody diluted at 1：1000

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