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Anti-SCN9A / Nav1.7 Antibody (Internal)

Rabbit Anti Human Polyclonal Antibody
Catalog # ALS17583

Product Information

Application	IHC-P
Primary Accession	Q15858
Predicted	Human
Host	Rabbit
Clonality	Polyclonal
Calculated MW	226372
Concentration (mg/ml)	1 mg/ml

Additional Information

Gene ID	6335
Alias Symbol	SCN9A
Other Names	SCN9A, ETHA, GEFSP7, Nav1.7, HNE-Na, Peripheral sodium channel 1, PN1, SFNP, Sodium channel 25, Neuroendocrine sodium channel, FEB3B, NE-NA, NENA
Target/Specificity	Human SCN9A / Nav1.7. BLAST analysis of the peptide immunogen showed no homology with other human proteins, except SCN8A (71%).
Reconstitution & Storage	Immunoaffinity purified
Precautions	Anti-SCN9A / Nav1.7 Antibody (Internal) is for research use only and not for use in diagnostic or therapeutic procedures.

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. 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: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