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SCN10A/Nav1.8 Polyclonal Antibody

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP58487

Product Information

Application	WB, IHC-P, IHC-F, IF, E
Primary Accession	Q9Y5Y9
Reactivity	Rat, Pig, Dog, Bovine
Host	Rabbit
Clonality	Polyclonal
Calculated MW	220626
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human SCN10A/NAV1.8
Epitope Specificity	1151-1250/1956
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Membrane; Multi-pass membrane protein. Note=It can be translocated to the extracellular membrane through association with S100A10.
SIMILARITY	Belongs to the sodium channel (TC 1.A.1.10) family. Nav1.8/SCN10A subfamily.Contains 1 IQ domain.
SUBUNIT	The voltage-resistant sodium channel consists of an ion conducting pore forming alpha-subunit regulated by one or more associated auxiliary subunits SCN1B, SCN2B and SCN3B. Found in a number of complexes with PRX, DYNLT1 and PDZD2. Interacts with proteins such as FSTL1, PRX, DYNLT1, PDZD2, S100A10 and many others. Interacts with NEDD4 and NEDD4L.
Post-translational modifications	Ubiquitinated by NEDD4L; which promotes its endocytosis.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	Nav1.8 protein mediates the voltage-dependent sodium ion permeability of excitable membranes. Assuming opened or closed conformations in response to the voltage difference across the membrane, Nav1.8 forms a sodium-selective channel through which sodium ions may pass in accordance with their electrochemical gradient. It is a tetrodotoxin-resistant sodium channel isoform. Nav1.8 plays a role in neuropathic pain mechanisms.

Additional Information

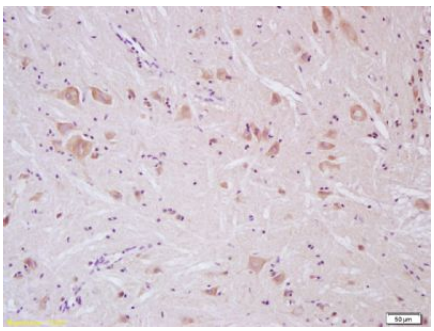
Gene ID	6336
Other Names	Sodium channel protein type 10 subunit alpha, Peripheral nerve sodium channel 3, PN3, hPN3, Sodium channel protein type X subunit alpha, Voltage-gated sodium channel subunit alpha Nav1.8, SCN10A
Target/Specificity	Expressed in the dorsal root ganglia and sciatic nerve.

Dilution	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500,ELISA=1:5000-10000
Format	0.01M TBS(pH7.4) with 1% BSA, 0.09% (W/V) sodium azide and 50% Glyce
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

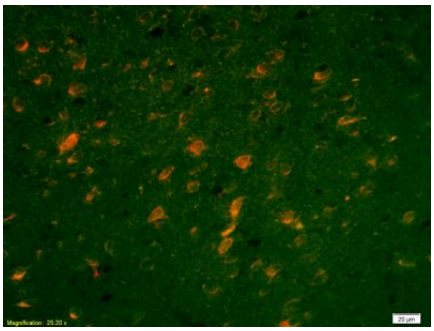
Protein Information

Name	SCN10A (HGNC:10582)
Function	Tetrodotoxin-resistant channel that 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 sodium ions may pass in accordance with their electrochemical gradient. Plays a role in neuropathic pain mechanisms.
Cellular Location	Cell membrane {ECO:0000250|UniProtKB:D0E0C2}; Multi-pass membrane protein {ECO:0000250|UniProtKB:D0E0C2}. Note=It can be translocated to the cell membrane through association with S100A10
Tissue Location	Expressed in the dorsal root ganglia and sciatic nerve.

Images



Tissue/cell: rat spinal cord; 4% Paraformaldehyde-fixed and paraffin-embedded;
Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37℃ for 20 min;
Incubation: Anti-SCN10A Polyclonal Antibody, Unconjugated(AP58487) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining



Tissue/cell: rat brain tissue;4% Paraformaldehyde-fixed and paraffin-embedded;
Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Blocking buffer (normal goat serum,C-0005) at 37℃ for 20 min;
Incubation: Anti-SCN10A Polyclonal Antibody, Unconjugated(AP58487) 1:200, overnight at 4°C; The secondary antibody was Goat Anti-Rabbit IgG, Cy3 conjugated(bs-0295G-Cy3)used at 1:200 dilution for 40 minutes at 37°C.