

Datasheet for ABIN7581964
anti-SCN9A antibody (Extracellular)



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Overview

Quantity:	50 µL
Target:	SCN9A
Binding Specificity:	AA 1355-1369, Extracellular
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Application:	Western Blotting (WB), Immunochromatography (IC), Live Cell Imaging (LCI), Flow Cytometry (FACS)

Product Details

Purpose:	A Rabbit Polyclonal Antibody to Human Nav1.7 (SCN9A)
Immunogen:	(C)DGSRFPASQV PNRSE, corresponding to amino acid residues 1355 - 1369 of human SCN9A
Sequence:	(C)DGSRFPASQV PNRSE
Isotype:	IgG
Specificity:	Extracellular, 11th loop (3rd loop of 3rd repeat).
Predicted Reactivity:	Human only Not recommended for rat,mouse samples
Characteristics:	Anti-Human Nav1.7 (SCN9A) (extracellular) Antibody (ABIN7581964) is a highly specific antibody directed against an extracellular epitope of the human protein. The antibody can be used in western blot, immunocytochemistry and flow cytometry applications. It has been designed to recognize the human Nav1.7 protein. Not recommended for rat or mouse samples.

Product Details

Purification: Affinity purified on immobilized antigen.

Target Details

Target: SCN9A

Alternative Name: SCN9A ([SCN9A Products](#))

Background: Voltage-gated sodium channel type IX subunit alpha, PN1, Voltage-gated sodium channels (NaV) are essential for the generation of action potentials and for cell excitability¹. NaV channels are activated in response to depolarization and selectively allow the flow of Na⁺ ions. To date, nine NaV α subunits have been cloned and named NaV1.1-NaV1.9⁴⁻⁵. The NaV channels are classified into two groups according to their sensitivity to tetrodotoxin (TTX): TTX-sensitive (NaV1.1, NaV1.2, NaV1.3, NaV1.4, NaV1.6 and NaV1.7) and TTX-resistant (NaV1.5, NaV1.8 and NaV1.9)²⁻³. Mammalian sodium channels are heterotrimers composed of a central, pore-forming α subunit and two auxiliary β subunits. The expression of the α subunit isoform is developmentally regulated and tissue specific. Na⁺ channels in the adult central nervous system and heart contain β 1 through β 4 subunits, whereas Na⁺ channels in adult skeletal muscle have only the β 1 subunit^{6,8}. NaV1.7 is predominantly expressed in dorsal root ganglions (DRG) of the peripheral nervous system. Dominant gain of function mutations in the NaV1.7 gene are associated with erythralgia (a rare autosomal disease characterized by sporadic burning pain accompanied by redness and heat in the extremities)⁹⁻¹¹. Loss of function mutations in NaV1.7 channels leads to complete ablation of pain perception in humans.¹¹ These recent findings highlight the role of this NaV isoform and the subset of DRG neurons that express this channel in physiological pain sensation.

Gene ID: 6335

UniProt: [Q15858](#)

Application Details

Application Notes: Antigen preadsorption control: 1 μ g peptide per 1 μ g antibody
Application Dilutions Immunohistochemistry paraffin embedded sections ihc: N/A
Application Dilutions Western blot wb: 1:200

Restrictions: For Research Use only

Handling

Format: Lyophilized

Handling

Reconstitution:	0.2 mL double distilled water (DDW).
Concentration:	1 mg/mL
Buffer:	PBS pH 7.4
Storage:	4 °C,-20 °C
Storage Comment:	Storage before reconstitution: The antibody ships as a lyophilized powder at room temperature. Upon arrival, it should be stored at -20°C. Storage after reconstitution: The reconstituted solution can be stored at 4°C for up to 1 week. For longer periods, small aliquots should be stored at -20°C. Avoid multiple freezing and thawing. Centrifuge all antibody preparations before use (10000 x g 5 min).