

Anti-Nav1.5 Picoband Antibody
Catalog # ABO12643**Specification**

Anti-Nav1.5 Picoband Antibody - Product Information

Application	WB
Primary Accession	Q14524
Host	Rabbit
Reactivity	Human, Mouse
Clonality	Polyclonal
Format	Lyophilized

Description

Rabbit IgG polyclonal antibody for Sodium channel protein type 5 subunit alpha (SCN5A) detection. Tested with WB in Human; Mouse.

Reconstitution

Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-Nav1.5 Picoband Antibody - Additional Information

Gene ID 6331

Other Names

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, SCN5A

Calculated MW

226940 MW KDa

Application Details

Western blot, 0.1-0.5 µg/ml, Mouse, Human

Subcellular Localization

Cell membrane ; Multi-pass membrane protein .

Tissue Specificity

Found in jejunal circular smooth muscle cells (at protein level). Expressed in human atrial and ventricular cardiac muscle but not in adult skeletal muscle, brain, myometrium, liver, or spleen. Isoform 4 is expressed in brain. .

Protein Name

Sodium channel protein type 5 subunit alpha

Contents

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na₂HPO₄, 0.05mg Na₃.

Immunogen

A synthetic peptide corresponding to a sequence at the C-terminus of human Nav1.5

(1896-1932aa LRRKHEEVSAMVIQRAFRRHLLQRSLKHASFLFRQQA), different from the related mouse and rat sequences by two amino acids.

Purification

Immunogen affinity purified.

Cross Reactivity

No cross reactivity with other proteins

Storage

At -20°C for one year. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for a longer time. Avoid repeated freezing and thawing.

Anti-Nav1.5 Picoband Antibody - Protein Information

Name SCN5A

Function

This 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, the protein forms a sodium-selective channel through which Na(+) ions may pass in accordance with their electrochemical gradient (PubMed:1309946, PubMed:21447824, PubMed:25370050, PubMed:23420830, PubMed:23085483, PubMed:26279430, PubMed:26392562, PubMed:26776555). It is a tetrodotoxin-resistant Na(+) channel isoform (PubMed:1309946). This channel is responsible for the initial upstroke of the action potential. Channel inactivation is regulated by intracellular calcium levels (PubMed:19074138).

Cellular Location

Cell membrane; Multi-pass membrane protein {ECO:0000250|UniProtKB:D0E0C2}. Cytoplasm, perinuclear region. Cell membrane, sarcolemma, T-tubule {ECO:0000250|UniProtKB:P15389}. Cell junction {ECO:0000250|UniProtKB:P15389}. Note=RANGRF promotes trafficking to the cell membrane. Colocalizes with PKP2 at intercalated disks in the heart (By similarity). {ECO:0000250|UniProtKB:P15389, ECO:0000269|PubMed:21447824, ECO:0000269|PubMed:23420830}

Tissue Location

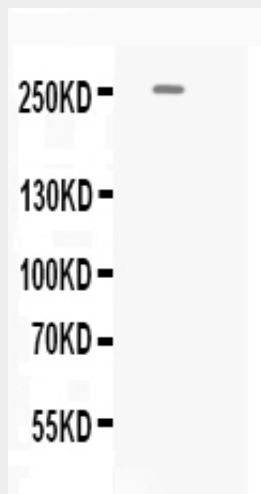
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Anti-Nav1.5 Picoband Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Anti-Nav1.5 Picoband Antibody - Images



Western blot analysis of Nav1.5 expression in mouse cardiac muscle extract (lane 1). Nav1.5 at 250KD was detected using rabbit anti-Nav1.5 Antigen Affinity purified polyclonal antibody (Catalog # ABO12643) at 0.5 µg/mL. The blot was developed using chemiluminescence (ECL) method.

Anti-Nav1.5 Picoband Antibody - Background

SCN5A is the gene that encodes the cardiac sodium channel NaV1.5. The protein encoded by this gene is an integral membrane protein and tetrodotoxin-resistant voltage-gated sodium channel subunit. This protein is found primarily in cardiac muscle and is responsible for the initial upstroke of the action potential in an electrocardiogram. Defects in this gene are a cause of long QT syndrome type 3 (LQT3), an autosomal dominant cardiac disease. Alternative splicing results in several transcript variants encoding different isoforms.