10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

SCN5A Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP18938a

Specification

SCN5A Antibody (N-term) - Product Information

Application	**WB,E**
Primary Accession	Q14524
Other Accession	P15389, Q9JJV9, NP_000326.2
Reactivity	**Human**
Predicted	**Mouse, Rat**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**226940**
Antigen Region	**42-70**

SCN5A Antibody (N-term) - 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 Nav15, SCN5A

Target/Specificity
This SCN5A antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 42-70 amino acids from the N-terminal region of human SCN5A.

Dilution
WB~~1:1000
E~~Use at an assay dependent concentration.

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
SCN5A Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

SCN5A Antibody (N-term) - Protein Information

Name SCN5A (HGNC:10593)

Function Pore-forming subunit of Nav1.5, 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:1309946, PubMed:21447824, PubMed:23085483, PubMed:23420830, PubMed:25370050, PubMed:26279430, PubMed:26392562, PubMed:26776555). Nav1.5 is the predominant sodium channel expressed in myocardial cells and it is responsible for the initial upstroke of the action potential in cardiac myocytes, thereby initiating the heartbeat (PubMed:11234013, PubMed:11804990, PubMed:12569159, PubMed:1309946). Required for normal electrical conduction including formation of the infranodal ventricular conduction system and normal action potential configuration, as a result of its interaction with XIRP2 (By similarity).

Cellular Location
Cell membrane; Multi-pass membrane protein {ECO:0000250|UniProtKB:P15389}. 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
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.

SCN5A Antibody (N-term) - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

SCN5A Antibody (N-term) - Images

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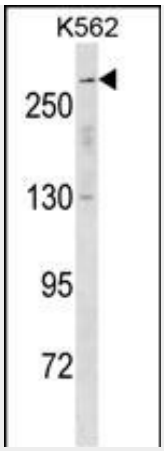

SCN5A Antibody (N-term) (Cat. #AP18938a) western blot analysis in K562 cell line lysates (35ug/lane).This demonstrates the SCN5A antibody detected the SCN5A protein (arrow).

SCN5A Antibody (N-term) - Background

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.

SCN5A Antibody (N-term) - References

Liu, M., et al. Circ. Res. 107(8):967-974(2010)
Bailey, S.D., et al. Diabetes Care 33(10):2250-2253(2010)
van Stuijvenberg, L., et al. DNA Cell Biol. 29(10):577-587(2010)
House, C.D., et al. Cancer Res. 70(17):6957-6967(2010)
Garcia-Castro, M., et al. Rev Esp Cardiol 63(7):856-859(2010)