

SCN5A Antibody (internal region)
Peptide-affinity purified goat antibody
Catalog # AF2457a**Specification**

SCN5A Antibody (internal region) - Product Information

Application	IHC, Pep-ELISA
Primary Accession	Q14524
Other Accession	NP_932173.1 , NP_000326.2 , NP_001092874.1 , NP_001092875.1 , NP_001153632.1 , NP_001153633.1 , 6331
Predicted	Human, Mouse, Rat, Dog
Host	Goat
Clonality	Polyclonal
Concentration	0.5 mg/ml
Isotype	IgG
Calculated MW	226940

SCN5A Antibody (internal region) - 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

Dilution

IHC~~1:100~500
Pep-ELISA~~N/A

Format

0.5 mg/ml in Tris saline, 0.02% sodium azide, pH7.3 with 0.5% bovine serum albumin

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

SCN5A Antibody (internal region) is for research use only and not for use in diagnostic or therapeutic procedures.

SCN5A Antibody (internal region) - 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

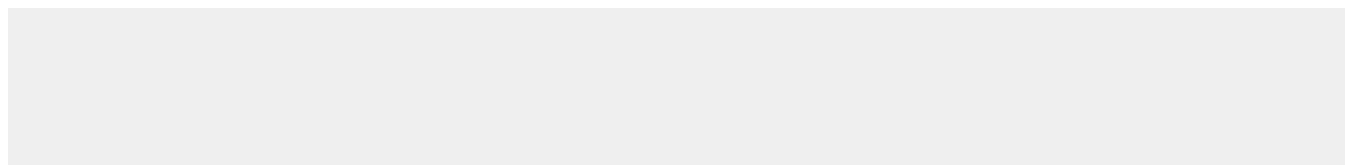
Found in jejunal circular smooth muscle cells (at protein level). Expressed in human atrial and ventricular cardiac muscle but not in adult skeletal muscle, brain, myometrium, liver, or spleen. Isoform 4 is expressed in brain.

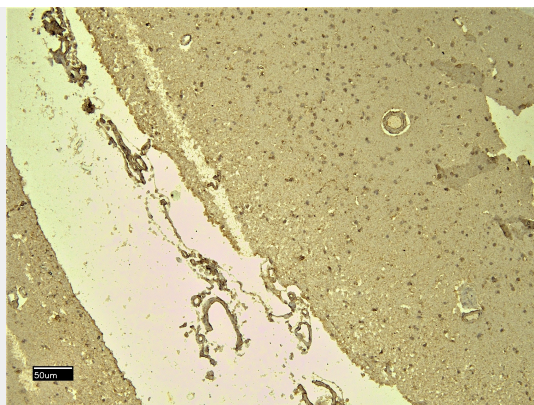
SCN5A Antibody (internal region) - Protocols

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

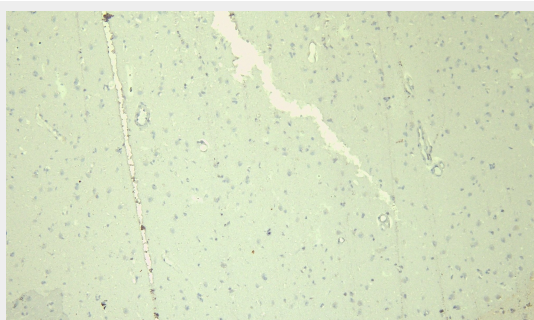
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

SCN5A Antibody (internal region) - Images





EB06912 (8µg/ml) staining of paraffin embedded Human Cortex. Heat induced antigen retrieval with citrate buffer pH 6, HRP-staining.



EB06912 Negative Control showing staining of paraffin embedded Human Cortex, with no primary antibody.

SCN5A Antibody (internal region) - Background

This antibody is expected to recognise all reported isoforms (NP_932173.1; NP_000326.2; NP_001092874.1; NP_001092875.1).

SCN5A Antibody (internal region) - References

Sodium channel mutations and susceptibility to heart failure and atrial fibrillation. Olson TM, Michels VV, Ballew JD, Reyna SP, Karst ML, Herron KJ, Horton SC, Rodeheffer RJ, Anderson JL. JAMA. 2005 Jan 26;293(4):447-54. PMID: 15671429