

# SCN5A Monoclonal antibody

Catalog Number: 68273-1-Ig

## Basic Information

<b>Catalog Number:</b> 68273-1-Ig	<b>GenBank Accession Number:</b> BC140813	<b>Purification Method:</b> Protein G purification
<b>Size:</b> 150ul, Concentration: 1000 ug/ml by Nanodrop;	<b>GeneID (NCBI):</b> 6331	<b>CloneNo.:</b> 1C2B3
<b>Source:</b> Mouse	<b>UNIPROT ID:</b> Q14524	<b>Recommended Dilutions:</b> WB 1:2000-1:10000 IHC 1:50-1:500
<b>Isotype:</b> IgG1	<b>Full Name:</b> sodium channel, voltage-gated, type V, alpha subunit	
<b>Immunogen Catalog Number:</b> AG19275	<b>Calculated MW:</b> 2016 aa, 227 kDa	
	<b>Observed MW:</b> 227 kDa	

## Applications

<b>Tested Applications:</b> WB, IHC, FC (Intra), ELISA	<b>Positive Controls:</b>
<b>Species Specificity:</b> human, mouse, rat, rabbit	<b>WB :</b> rat heart tissue, rabbit heart tissue
<b>Note-IHC:</b> suggested antigen retrieval with <b>TE buffer pH 9.0; (*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0</b>	<b>IHC :</b> mouse skeletal muscle tissue,

## Background Information

Voltage-gated sodium channels are responsible for initiation and propagation of action potentials in the membranes of neurons and most electrically excitable cells (PMID: 10798388). These channels are composed of a large alpha subunit that forms the ion conduction pore and auxiliary beta subunits (PMID: 11486343). The alpha subunits form a gene family with at least 10 members. Nav1.5, encoded by the SCN5A gene in humans, is a pore forming alpha subunit of voltage-gated sodium channels. Nav1.5 is the principal Na<sup>+</sup> channel isoform expressed in cardiomyocytes. Mutations in SCN5A gene have been linked to many cardiac electrical disorders, including the congenital and acquired long QT syndrome, Brugada syndrome, conduction slowing, sick sinus syndrome, atrial fibrillation, and dilated cardiomyopathy (PMID: 23123192).

## Storage

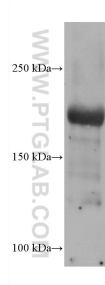
**Storage:**  
Store at -20°C. Stable for one year after shipment.  
**Storage Buffer:**  
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.  
**Aliquoting is unnecessary for -20°C storage**

**\*\*\* 20ul sizes contain 0.1% BSA**

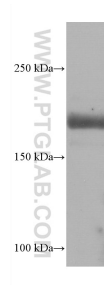
For technical support and original validation data for this product please contact:  
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)  
E: [proteintech@ptglab.com](mailto:proteintech@ptglab.com)  
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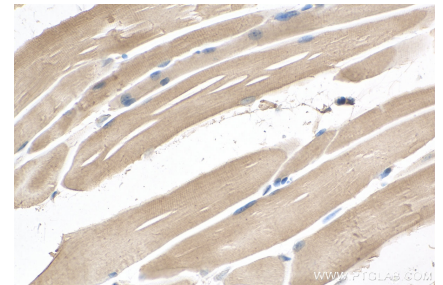
## Selected Validation Data



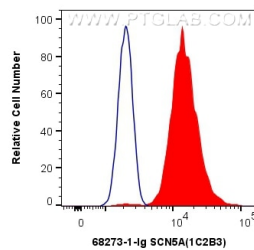
rabbit heart tissue were subjected to SDS PAGE followed by western blot with 68273-1-Ig (SCN5A antibody) at dilution of 1:5000 incubated at room temperature for 1.5 hours.



rat heart tissue were subjected to SDS PAGE followed by western blot with 68273-1-Ig (SCN5A antibody) at dilution of 1:5000 incubated at room temperature for 1.5 hours.



Immunohistochemical analysis of paraffin-embedded mouse skeletal muscle tissue slide using 68273-1-Ig (SCN5A antibody) at dilution of 1:200 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



1X10<sup>6</sup> HeLa cells were intracellularly stained with 0.4 ug Anti-Human SCN5A (68273-1-Ig, Clone:1C2B3) and CoraLite®488-Conjugated Goat Anti-Mouse IgG(H+L) at dilution 1:1000 (red), or 0.4 ug Mouse IgG1 Isotype Control (MOPC-21) (65124-1-Ig, Clone: MOPC-21) (blue). Cells were fixed with 4% PFA and permeabilized with Flow Cytometry Perm Buffer (PF00011-C).