For Research Use Only

SCN5A Monoclonal antibody

Catalog Number:68273-1-Ig

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Basic Information

Catalog Number:
68273-1-Ig

Size:
1000 μg/ml

Source:
Mouse

Isotype:
IgG1

Immunogen Catalog Number:
AG19275

GenBank Accession Number:
BC140813

GeneID (NCBI):
6331

UNIPROT ID:
Q14524

Full Name:
sodium channel, voltage-gated, type V, alpha subunit

Calculated MW:
2016 aa, 227 kDa

Observed MW:
227 kDa

Purification Method:
Protein G purification

CloneNo.:
1C2B3

Recommended Dilutions:
WB 1:2000-1:10000
IHC 1:50-1:500

Applications

Tested Applications:
WB, IHC, FC (Intra), ELISA

Species Specificity:
human, mouse, rat, rabbit

Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0

Positive Controls:

WB : rat heart tissue, rabbit heart tissue

IHC : 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+ 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

For technical support and original validation data for this product please contact:
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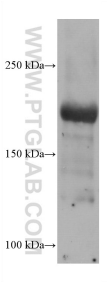
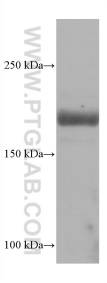
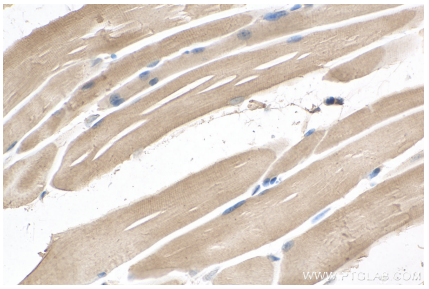
Selected Validation Data



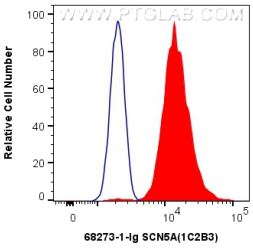
rabbit heart tissue were subjected to SDS PAGE followed by western blot with 68273-1-Ig (SCN5A antibody) at dilution of 1:5000 incubated at room temperature for 1.5 hours.



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).



1X10^6 HeLa cells were intracellularly stained with 0.4 ug Anti-Human SCN5A (68273-1-Ig, Clone:1C2B3) and CoraLite®488-Conjugated AffiniPure 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).