

Anti-Pan-Nav channel [K58/35] Standard Size Ab02113-10.3

This antibody was created using our proprietary Fc Silent™ engineered Fc domain containing key point mutations that abrogate binding to Fc gamma receptors. Variable region sequences were determined by Dr. James Trimmer at the University of California, Davis, as supported by National Institutes of Health BRAIN Initiative award U24 NS109113.

This chimeric human antibody was made using the variable domain sequences of the original Mouse IgG1 format, for improved compatibility with existing reagents, assays and techniques.

Isotype and Format: Human IgG1, Fc Silent™, Kappa

Clone Number: K58/35

Alternative Name(s) of Target: K58/35R; sodium voltage-gated channel; Na⁺ channel

UniProt Accession Number of Target Protein:

Published Application(s): IB, WB, IHC

Published Species Reactivity: Vertebrates

Immunogen: This antibody was raised by immunising mice with a synthetic peptide corresponding to a highly conserved segment of the intracellular III-IV loop of vertebrate Na⁺ channels.

Specificity: This pan-voltage-gated sodium channel antibody is specific for a conserved sequence present in all vertebrate Nav1 isoforms. It binds to all voltage-gated sodium channel isoforms.

Application Notes: This antibody has been used to stain teased axons prepared from rat spinal nerves (Devaux, 2012), sections of rat retina (Wart et al, 2005) and mice optic nerve cryosections (Vega et al, 2008) for Nav expression. This antibody has been shown to label Nav channels concentrated on the axon initial segment and nodes of Ranvier (Andrews et al, 2019). This antibody has been used in immunoblot analysis of rat brain membranes (Wart et al, 2005; Vega et al, 2013), and to stain COS-1 cells transfected with Nav1 cDNA (Wart et al, 2005). Additionally, this antibody has been used in western blot analysis of mice optic nerve and brain membrane proteins (Vega et al, 2008).

Antibody First Published in: Rasband et al. Dependence of Nodal Sodium Channel Clustering on Paranodal Axoglial Contact in the Developing CNS *Journal of Neuroscience* 1 September 1999, 19 (17) 7516-7528; [PMID:10460258](#)

Note on publication: Describes the original generation of this antibody.

Product Form

Size: 200 µg Purified antibody.

Purification: Protein A affinity purified

Supplied In: PBS with 0.02% Proclin 300.

Storage Recommendation: Store at 4°C for up to 3 months. For longer storage, aliquot and store at -20°C.

Concentration: 1 mg/ml.

Important note – This product is for research use only. It is not intended for use in therapeutic or diagnostic procedures for humans or animals.