



Na⁺ CP type X α (G-15): sc-100047

BACKGROUND

Voltage-gated sodium channels are selective ion channels that regulate the permeability of sodium ions in excitable cells. During the propagation of an action potential, sodium channels allow an influx of sodium ions, which rapidly depolarizes the cell. Na⁺ CP type X α , also known as SCN10A (sodium channel, voltage-gated, type X, alpha subunit), PN3, SNS or hPN3, is a 1,956 amino acid multi-pass membrane protein that contains one IQ domain and belongs to the voltage-gated sodium channel family. Expressed in sciatic nerve and dorsal root ganglia, Na⁺ CP type X α functions to mediate the voltage-dependent sodium ion permeability of excitable membranes, specifically assuming an opened or closed conformation in response to voltage changes across the membrane. Na⁺ CP type X α plays a role in neuropathic pain mechanisms and is subject to ubiquitination, an event which promotes endocytosis.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: SCN10A (human) mapping to 3p22.2; Scn10a (mouse) mapping to 9 F4.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

SOURCE

Na⁺ CP type X α (G-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Na⁺ CP type X α of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-100047 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Na⁺ CP type X α (G-15) is recommended for detection of Na⁺ CP type X α of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with family member Na⁺ CP type X β .

Suitable for use as control antibody for Na⁺ CP type X α siRNA (h): sc-78328, Na⁺ CP type X α siRNA (m): sc-149787, Na⁺ CP type X α shRNA Plasmid (h): sc-78328-SH, Na⁺ CP type X α shRNA Plasmid (m): sc-149787-SH, Na⁺ CP type X α shRNA (h) Lentiviral Particles: sc-78328-V and Na⁺ CP type X α shRNA (m) Lentiviral Particles: sc-149787-V.

Molecular Weight of Na⁺ CP type X α : 221 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.