

Cacna2d1 (N-17): sc-104119

BACKGROUND

Voltage-dependent calcium channels are essential for the release of neurotransmitters. Cacna2d1 (calcium channel, voltage-dependent, $\alpha 2/\delta$ subunit 1), also known as CACNA2, CCHL2A, MHS3 or CACNL2A, is a 1,091 amino acid single-pass type I membrane protein that contains one WWFA domain and one cache domain. Expressed in skeletal muscle, aorta tissues and in the central nervous system (CNS), Cacna2d1 functions as an $\alpha 2/\delta$ subunit of voltage-dependent calcium channels and plays an important role in calcium current density, as well as in excitation-contraction coupling. The Cacna2d1 precursor is proteolytically processed to produce two functional subunits, designated $\alpha 2-1$ and $\delta 1$, which are disulfide-linked to one another.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: CACNA2D1 (human) mapping to 7q21.11; Cacna2d1 (mouse) mapping to 5 A2.

RESEARCH USE

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

SOURCE

Cacna2d1 (N-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an N-terminal extracellular domain of Cacna2d1 of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-104119 P, (100 μg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Cacna2d1 (N-17) is recommended for detection of Cacna2d1 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 members Cacna2d2, Cacna2d3 or Cacna2d4.

Suitable for use as control antibody for Cacna2d1 siRNA (h): sc-89621, Cacna2d1 siRNA (m): sc-141968, Cacna2d1 shRNA Plasmid (h): sc-89621-SH, Cacna2d1 shRNA Plasmid (m): sc-141968-SH, Cacna2d1 shRNA (h) Lentiviral Particles: sc-89621-V and Cacna2d1 shRNA (m) Lentiviral Particles: sc-141968-V.

Molecular Weight of Cacna2d1: 123 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.

STORAGE

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

PROTOCOLS

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



Try **Cacna2d1 (E-10): sc-271697**, our highly recommended monoclonal alternative to Cacna2d1 (N-17).