

Cacna2d3 (N-13): sc-99323

BACKGROUND

Members of the calcium channel subunit α -2/ δ family regulate many aspects of calcium channels, such as increasing functional channel density on the plasma membrane, regulating voltage dependent kinetics and gating. Cacna2d3 (voltage-dependent calcium channel subunit α -2/ δ -3) is a 1,091 amino acid single-pass transmembrane protein that interacts with α -1, α -2 and β subunits in a 1:1:1:1 ratio to form a channel-mediating calcium influx. Cacna2d3 contains a WWFA domain that binds divalent metal cations, which are required to promote trafficking of the α -1 subunit to the plasma membrane. Cacna2d3 can be proteolytically cleaved into α -2-3 and δ -3 subunits that are linked by disulfide bonds. Loss of heterozygosity in the gene encoding Cacna2d3 has been discovered in conventional renal cell carcinomas.

REFERENCES

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5. Online Mendelian Inheritance in Man, OMIM[™]. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 606399. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
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CHROMOSOMAL LOCATION

Genetic locus: CACNA2D3 (human) mapping to 3p21.1; Cacna2d3 (mouse) mapping to 14 A3.

SOURCE

Cacna2d3 (N-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an N-terminal extracellular domain of Cacna2d3 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-99323 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Cacna2d3 (N-13) is recommended for detection of Cacna2d3 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], 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 Cacna2d1, Cacna2d2 or Cacna2d4.

Suitable for use as control antibody for Cacna2d3 siRNA (h): sc-78007, Cacna2d3 siRNA (m): sc-141969, Cacna2d3 shRNA Plasmid (h): sc-78007-SH, Cacna2d3 shRNA Plasmid (m): sc-141969-SH, Cacna2d3 shRNA (h) Lentiviral Particles: sc-78007-V and Cacna2d3 shRNA (m) Lentiviral Particles: sc-141969-V.

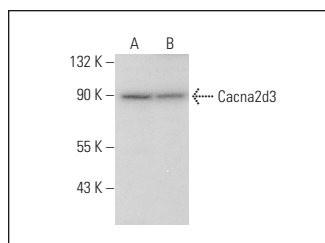
Molecular Weight of Cacna2d3 isoforms: 59/113/123 kDa.

Positive Controls: U-251-MG whole cell lysate: sc-364176 or HeLa whole cell lysate: sc-2200.

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



Cacna2d3 (N-13): sc-99323. Western blot analysis of Cacna2d3 expression in U-251-MG (A) and HeLa (B) whole cell lysates.

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.