

Cacna2d3 (E-15): sc-99322

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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CHROMOSOMAL LOCATION

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

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

Cacna2d3 (E-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an 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-99322 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Cacna2d3 (E-15) 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.

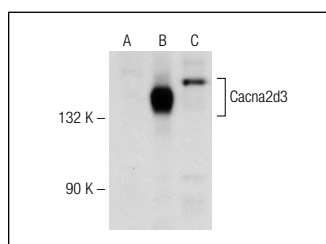
Cacna2d3 (E-15) is also recommended for detection of Cacna2d3 in additional species, including equine, canine, bovine, porcine and avian.

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: Cacna2d3 (m): 293T Lysate: sc-178349, IMR-32 cell lysate: sc-2409 or mouse brain extract: sc-2253.

DATA



Cacna2d3 (E-15): sc-99322. Western blot analysis of Cacna2d3 expression in non-transfected 293T: sc-117752 (A), mouse Cacna2d3 transfected 293T: sc-178349 (B) and IMR-32 (C) whole cell lysates.

PROTOCOLS

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