

Cacna2d2 (H-210): sc-66822

BACKGROUND

CACNA2D2 is a gene coding for the protein calcium channel, voltage-dependent $\alpha 2/\delta$ -2 (Cacna2d2), a regulatory subunit of the voltage dependent calcium channels. The protein interacts with α -1, β and γ subunits in a 1:1:1:1 ratio to form a channel mediating calcium influx. Protein expression occurs in the brain, heart and other tissues, and is involved in central nervous system function. Disruptions of the CACNA2D2 gene may be involved in cerebellar ataxias and epileptic episodes in humans. The gene is localized to the tumor suppressor region of chromosome 3p21.31 in humans. Expression deficiency occurs in lung, breast and other cancers in humans. Part of a family of $\alpha 2/\delta$ subunits involved in voltage-dependent calcium influx, Cacna2d2 shares 56% amino acid homology with the $\alpha 2/\delta$ -1 subunit, although they have different patterns of tissue expression.

CHROMOSOMAL LOCATION

Genetic locus: CACNA2D2 (human) mapping to 3p21.31; Cacna2d2 (mouse) mapping to 9 F1.

SOURCE

Cacna2d2 (H-210) is a rabbit polyclonal antibody raised against amino acids 1-210 mapping at the N-terminus of Cacna2d2 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.

STORAGE

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

APPLICATIONS

Cacna2d2 (H-210) is recommended for detection of Cacna2d2 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Cacna2d2 (H-210) is also recommended for detection of Cacna2d2 in additional species, including porcine.

Suitable for use as control antibody for Cacna2d2 siRNA (h): sc-45522, Cacna2d2 siRNA (m): sc-45523, Cacna2d2 shRNA Plasmid (h): sc-45522-SH, Cacna2d2 shRNA Plasmid (m): sc-45523-SH, Cacna2d2 shRNA (h) Lentiviral Particles: sc-45522-V and Cacna2d2 shRNA (m) Lentiviral Particles: sc-45523-V.

Molecular Weight of Cacna2d2: 130 kDa.

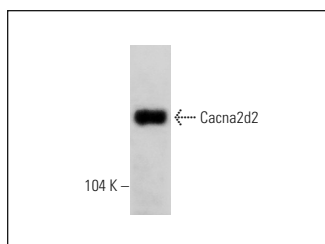
Molecular Weight of glycosylated Cacna2d2: 150 kDa.

Positive Controls: rat cerebellum extract: sc-2398.

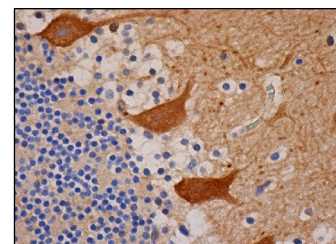
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

DATA



Cacna2d2 (H-210): sc-66822. Western blot analysis of Cacna2d2 expression in rat cerebellum tissue extract.



Cacna2d2 (H-210): sc-66822. Immunoperoxidase staining of formalin fixed, paraffin-embedded human cerebellum tissue showing cytoplasmic and membrane staining of Purkinje cells and cells in molecular layer.

RESEARCH USE

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

PROTOCOLS

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

MONOS
Satisfaction
Guaranteed

Try **Cacna2d2 (42): sc-136423** or **Cacna2d2 (G-5): sc-365911**, our highly recommended monoclonal alternatives to Cacna2d2 (H-210).