SANTA CRUZ BIOTECHNOLOGY, INC.

Junctophilin-4 (S-15): sc-162971

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Junctophilins, which are present in all excitable cells, are components of the junctional complexes between the plasma membrane and the endoplasmic or sarcoplasmic reticulum. Junctophilins contain a cytoplasmic domain that binds to the plasma membrane, as well as an ER/SR membrane spanning hydrophobic C-terminal segment. Junctophilin-4, also known as JP4, JPHL1 or JPH4, is a 628 amino acid single-pass type IV membrane protein that contains eight MORN repeats. The MORN (membrane occupation and recognition nexus) repeats are thought to contribute to plasma membrane binding, possibly by interacting with phospholipids. Expressed specifically in brain, Junctophilin-4 may be involved in subsurface cistern formation in neurons.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: JPH4 (human) mapping to 14q11.2; Jph4 (mouse) mapping to 14 C3.

SOURCE

Junctophilin-4 (S-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within a cytoplasmic domain of Junctophilin-4 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-162971 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Junctophilin-4 (S-15) is recommended for detection of Junctophilin-4 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 other Junctophilin family members.

Junctophilin-4 (S-15) is also recommended for detection of Junctophilin-4 in additional species, including canine and porcine.

Suitable for use as control antibody for Junctophilin-4 siRNA (h): sc-92281, Junctophilin-4 siRNA (m): sc-146336, Junctophilin-4 shRNA Plasmid (h): sc-92281-SH, Junctophilin-4 shRNA Plasmid (m): sc-146336-SH, Junctophilin-4 shRNA (h) Lentiviral Particles: sc-92281-V and Junctophilin-4 shRNA (m) Lentiviral Particles: sc-146336-V.

Molecular Weight of Junctophilin-4: 66 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.

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.