

Junctophilin-2 (H-250): sc-134875

BACKGROUND

Junctophilins are components of the junctional complexes between plasma membranes and endoplasmic or sarcoplasmic reticulum present in all excitable cells. Junctophilins contain a cytoplasmic domain which binds to the plasma membrane, as well as an ER/SR membrane spanning hydrophobic C-terminal segment. The three subtypes in this family are Junctophilin-1, -2 and -3. Junctophilin-1 is predominantly expressed in skeletal muscle, but is also expressed at low levels in heart. Junctophilin-2 is expressed in heart and skeletal muscle. Mutant mice lacking the *Jph2* gene exhibit embryonic lethality and possess cardiac myocytes that express abnormal calcium transients. Junctophilin-3 is expressed in brain. The JPH3 alternatively spliced exon 2A has been suggested as a site for CTG repeat expansion leading to a Huntington disease-like autosomal dominant disorder.

REFERENCES

1. Takeshima, H., et al. 2000. Junctophilins: a novel family of junctional membrane complex proteins. *Mol. Cell* 6: 11-22.
2. Margolis, R.L., et al. 2001. A disorder similar to Huntington's disease is associated with a novel CAG repeat expansion. *Ann. Neurol.* 50: 373-380.

CHROMOSOMAL LOCATION

Genetic locus: JPH2 (human) mapping to 20q13.12; *Jph2* (mouse) mapping to 2 H3.

SOURCE

Junctophilin-2 (H-250) is a rabbit polyclonal antibody raised against amino acids 431-680 mapping near the C-terminus of Junctophilin-2 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.

APPLICATIONS

Junctophilin-2 (H-250) is recommended for detection of Junctophilin-2 isoform 1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg 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).

Suitable for use as control antibody for Junctophilin-2 siRNA (h): sc-72007, Junctophilin-2 siRNA (m): sc-72008, Junctophilin-2 siRNA (r): sc-270010, Junctophilin-2 shRNA Plasmid (h): sc-72007-SH, Junctophilin-2 shRNA Plasmid (m): sc-72008-SH, Junctophilin-2 shRNA Plasmid (r): sc-270010-SH, Junctophilin-2 shRNA (h) Lentiviral Particles: sc-72007-V, Junctophilin-2 shRNA (m) Lentiviral Particles: sc-72008-V and Junctophilin-2 shRNA (r) Lentiviral Particles: sc-270010-V.

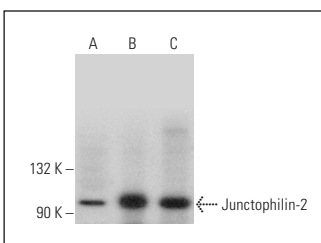
Molecular Weight of Junctophilin-2: 100 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, Caco-2 cell lysate: sc-2262 or A549 cell lysate: sc-2413.

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.

DATA



Junctophilin-2 (H-250): sc-134875. Western blot analysis of Junctophilin-2 expression in Jurkat (A), Caco-2 (B) and A549 (C) 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.

PROTOCOLS

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



Try **Junctophilin-2 (H-3): sc-377086** or **Junctophilin-2 (A-1): sc-398290**, our highly recommended monoclonal alternatives to Junctophilin-2 (H-250).