

Junctophilin-2 (D-11): sc-398457

BACKGROUND

Junctophilins are components of the junctional complexes between plasma membranes and endoplasmic or sarcoplasmic reticulums 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

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5. Minamisawa, S., et al. 2004. Junctophilin type 2 is associated with caveolin-3 and is downregulated in the hypertrophic and dilated cardiomyopathies. *Biochem. Biophys. Res. Commun.* 325: 852-856.
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7. Matsushita, Y., et al. 2007. Mutation of Junctophilin type 2 associated with hypertrophic cardiomyopathy. *J. Hum. Genet.* 52: 543-548.
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CHROMOSOMAL LOCATION

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

SOURCE

Junctophilin-2 (D-11) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 554-579 near the C-terminus of Junctophilin-2 of human origin.

STORAGE

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

PRODUCT

Each vial contains 200 µg IgG₃ in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-398457 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

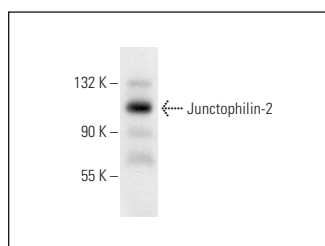
Junctophilin-2 (D-11) is recommended for detection of Junctophilin-2 isoform 1 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 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: human heart extract: sc-363763.

DATA



Junctophilin-2 (D-11): sc-398457. Western blot analysis of Junctophilin-2 expression in human heart tissue extract.

RESEARCH USE

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

PROTOCOLS

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