



Qty: 100 µg/400 µL

Rabbit anti-Junctophilin-1 (C-term)

Catalog No. 40-5100

Lot No.

Rabbit anti-Junctophilin-1 (C-term)

FORM

This polyclonal antibody is supplied as a 400 µL aliquot at a concentration of 0.25 mg/mL in phosphate buffered saline (pH 7.4) containing 0.1% sodium azide. This antibody is epitope-affinity purified from rabbit antiserum.

PAD: ZMD.472

IMMUNOGEN

Synthetic peptide derived from the C-terminal region of the mouse junctophilin-1 (JP-1, junctophilin type 1, JPH1) protein, which differs from rat by one non-conservative amino acid replacement

SPECIFICITY

This antibody is specific for the junctophilin-1 protein. On Western blots, it identifies the target band at ~90 kDa. A band at ~72 kDa is also observed in mouse brain homogenates, which may represent a different isoform or a different post-translational modification state.

REACTIVITY

Reactivity has been confirmed with mouse brain and skeletal muscle homogenates by Western blotting, and with frozen mouse brain (hippocampus) and skeletal muscle tissues by immunohistochemistry and immunofluorescence.

Sample	Western Blotting	Immuno-histochemistry (frozen)	Immuno-fluorescence
Mouse	+++	+++	+++
Rat	ND	ND	ND

(Excellent +++, Good++, Poor +, No reactivity 0, Not applicable N/A, Not Determined ND)

USAGE

Working concentrations for specific applications should be determined by the investigator. Appropriate concentrations will be affected by several factors, including secondary antibody affinity, antigen concentration, sensitivity of detection method, temperature and length of incubations, etc. The suitability of this antibody for applications other than those listed below has not been determined. The following concentration ranges are recommended starting points for this product.

Western Blotting: 1-3 µg/mL
Immunohistochemistry (frozen): 1-3 µg/mL
Immunofluorescence: 1-3 µg/mL

STORAGE

Store at 2-8°C for up to one month. Store at -20°C for long-term storage. Avoid repeated freezing and thawing.

(cont'd)

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PI405100

(Rev 10/08) DCC-08-1089

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BACKGROUND

Junctional complexes between the plasma membrane (PM) and endoplasmic/ sarcoplasmic reticulum (ER/ SR) are a common feature of all excitable cell types and mediate cross-talk between cell surface and intracellular ion channels.¹⁻² The junctophilins (JPHs, JPs) are a novel conserved family of proteins that are important components of the junctional membrane complexes.³⁻⁵ JPHs are composed of a C-terminal hydrophobic segment spanning the ER/SR membrane and a remaining cytoplasmic domain that shows specific affinity for the PM, which is thought to provide a structural basis for physiological coupling between cell surface and intracellular channels.⁵

In mouse, there are four junctophilin subtypes: JP-1, -2, -3, and -4.⁵ Junctophilin-1 is predominantly expressed in skeletal muscle,⁴⁻⁵ where it contributes to the construction of triad junctions and is essential for the efficiency of signal conversion during E-C coupling.⁶⁻⁷

REFERENCES

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rec-Protein G	Sepharose [®] 4B	10-1241

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