

RIPX (Q-15): sc-131778

BACKGROUND

RIPX (Rap 2-interacting protein x), also known as RUFY3 (RUN and FYVE domain containing 3) or Singar1, is a 469 amino acid protein that contains one RUN (RPIP8, unc-14 and NESCA) domain and is highly expressed in brain tissue. Localized to both the cell projection and to the lamellipodia and filopodia of growth cones, RIPX is thought to play a role neuronal development, specifically by mediating the formation of single axons, a process that maintains optimal neuronal polarity. RIPX interacts with PI 3-kinase p110 α and PI 3-kinase p85 α and, via this interaction, may be able to inhibit the formation of additional axons during neuronal maturation. Two isoforms of RIPX (one of which is partially phosphorylated) exist due to alternative splicing events.

REFERENCES

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2. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 611194. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
3. Yoshimura, T., Arimura, N. and Kaibuchi, K. 2006. Molecular mechanisms of axon specification and neuronal disorders. Ann. N.Y. Acad. Sci. 1086: 116-125.
4. Yoshimura, T., Arimura, N., Kawano, Y., Kawabata, S., Wang, S. and Kaibuchi, K. 2006. Ras regulates neuronal polarity via the PI3-kinase/Akt/GSK-3 β /CRMP-2 pathway. Biochem. Biophys. Res. Commun. 340: 62-68.
5. Mori, T., Wada, T., Suzuki, T., Kubota, Y. and Inagaki, N. 2007. Singar1, a novel RUN domain-containing protein, suppresses formation of surplus axons for neuronal polarity. J. Biol. Chem. 282: 19884-19893.

CHROMOSOMAL LOCATION

Genetic locus: RUFY3 (human) mapping to 4q13.3; Rufy3 (mouse) mapping to 5 E1.

SOURCE

RIPX (Q-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of RIPX 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.

Blocking peptide available for competition studies, sc-131778 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

RIPX (Q-15) is recommended for detection of RIPX isoforms 1 and 2 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).

Suitable for use as control antibody for RIPX siRNA (h): sc-89116, RIPX siRNA (m): sc-152978, RIPX shRNA Plasmid (h): sc-89116-SH, RIPX shRNA Plasmid (m): sc-152978-SH, RIPX shRNA (h) Lentiviral Particles: sc-89116-V and RIPX shRNA (m) Lentiviral Particles: sc-152978-V.

Molecular Weight of RIPX: 55 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.

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.