SANTA CRUZ BIOTECHNOLOGY, INC.

RIPX (P-16): sc-102090

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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 p110α and PI 3-kinase p85α 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-3β/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 (P-16) is a purified rabbit polyclonal antibody raised against RIPX of human origin.

PRODUCT

Each vial contains 50 µg IgG in 500 µl PBS with < 0.1% sodium azide, 0.1% gelatin and < 0.02% sucrose.

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.

APPLICATIONS

RIPX (P-16) is recommended for detection of RIPX of mouse, rat, human and canine 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)] 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.

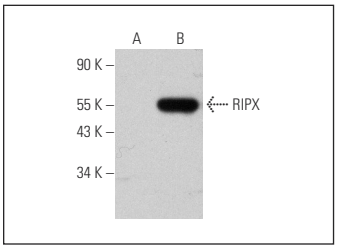
Molecular Weight of RIPX: 55 kDa.

Positive Controls: RIPX (m): 293T Lysate: sc-123211.

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).

DATA



RIPX (P-16): sc-102090. Western blot analysis of RIPX expression in non-transfected: sc-117752 (**A**) and mouse RIPX transfected: sc-123211 (**B**) 293T whole cell lysates.

PROTOCOLS

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