SANTA CRUZ BIOTECHNOLOGY, INC.

RIPX (m): 293T Lysate: sc-123211

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

1. Nagase, T., Ishikawa, K., Suyama, M., Kikuno, R., Hirosawa, M., Miyajima, N., Tanaka, A., Kotani, H., Nomura, N. and Ohara, O. 1998. Prediction of the coding sequences of unidentified human genes. XII. The complete sequences of 100 new cDNA clones from brain which code for large proteins *in vitro*. DNA Res. 5: 355-364.
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 PI 3-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.
6. Hammad, S.M., Twal, W.O., Barth, J.L., Smith, K.J., Saad, A.F., Virella, G., Argraves, W.S. and Lopes-Virella, M.F. 2009. Oxidized LDL immune complexes and oxidized LDL differentially affect the expression of genes involved with inflammation and survival in human U937 monocytic cells. Atherosclerosis 202: 394-404.

CHROMOSOMAL LOCATION

Genetic locus: Rufy3 (mouse) mapping to 5 E1.

PRODUCT

RIPX (m): 293T Lysate represents a lysate of mouse RIPX transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

APPLICATIONS

RIPX (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive RIPX antibodies. Recommended use: 10-20 µl per lane.

Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

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.