SANTA CRUZ BIOTECHNOLOGY, INC.

RIP3 (Rippy-3): sc-56228



BACKGROUND

The death domain is a cytoplasmic domain of approximately 80 amino acids that is necessary for the transduction of apoptotic signals and is present in the apoptosis-mediating receptors TNF-R1 and FAS. Other death domain-containing, but otherwise structurally unrelated proteins have been identified on the basis of their ability to associate with the cytoplasmic domains of TNF-R1 or FAS. One of these proteins, the receptor-interacting protein 3 (RIP3), contains an N-terminal kinase domain and shares extensive homology with RIP and RIP2. However, RIP3 contains a unique C-terminal death domain, which promotes apoptosis. RIP3 can be expressed as two splice variants, RIP3 β and RIP3 γ , which contain a truncated N-terminal kinase domain and a distinct and shorter C-terminus. Subsequently, expression of these splice variants downregulates RIP3-mediated apoptosis.

REFERENCES

- 1. Sun, X., Lee, J., Navas, T., Baldwin, D.T., Stewart, T.A. and Dixit, V.M. 1999. RIP3, a novel apoptosis-inducing kinase. J. Biol. Chem. 274: 16871-16875.
- Yu, P.W., Huang, B.C., Shen, M., Quast, J., Chan, E., Xu, X., Nolan, G.P., Payan, D.G. and Luo, Y. 1999. Identification of RIP3, a RIP-like kinase that activates apoptosis and NFκB. Cur. Biol. 9: 539-542.
- Kasof, G.M., Prosser, J.C., Liu, D., Lorenzi, M.V. and Gomes, B.C. 2000. The RIP-like kinase, RIP3, induces apoptosis and NFκB nuclear translocation and localizes to mitochondria. FEBS Lett. 473: 285-291.
- Sun, X., Yin, J., Starovasnik, M.A., Fairbrother, W.J. and Dixit, V.M. 2002. Identification of a novel homotypic interaction motif required for the phosphorylation of receptor-interacting protein by RIP3. J. Biol. Chem. 277: 9505-9511.
- 5. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 605817. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
- Yang, Y., Ma, J., Chen, Y. and Wu, M. 2004. Nucleocytoplasmic shuttling of RIP3: identification of novel nuclear export and import signals in RIP3. J. Biol. Chem. 279: 38820-38829.

CHROMOSOMAL LOCATION

Genetic locus: RIPK3 (human) mapping to 14q12; Ripk3 (mouse) mapping to 14 C3.

SOURCE

RIP3 (Rippy-3) is a mouse monoclonal antibody raised against full length RIP3 of human origin.

PRODUCT

Each vial contains 50 μg in 0.5 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

Store at 4° C, **D0 NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

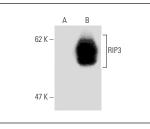
RIP3 (Rippy-3) is recommended for detection of RIP3 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for RIP3 siRNA (h): sc-61482, RIP3 siRNA (m): sc-61483, RIP3 shRNA Plasmid (h): sc-61482-SH, RIP3 shRNA Plasmid (m): sc-61483-SH, RIP3 shRNA (h) Lentiviral Particles: sc-61482-V and RIP3 shRNA (m) Lentiviral Particles: sc-61483-V.

Molecular Weight of RIP3: 60 kDa.

Positive Controls: human RIP3 transfected 293T whole cell lysate.

DATA



RIP3 (Rippy-3): sc-56228. Western blot analysis of RIP3 expression in non-transfected (**A**) and human RIP3 transfected (**B**) 293T whole cell lysates.

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.



See **RIP3 (B-2): sc-374639** for RIP3 antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor[®] 488, 546, 594, 647, 680 and 790.