SANTA CRUZ BIOTECHNOLOGY, INC.

RIP3 (h): 293T Lysate: sc-116869

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, RIP3β and RIP3γ, 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., et al. 1999. RIP3, a novel apoptosis-inducing kinase. J. Biol. Chem. 274: 16871-16875.
2. Yu, P.W., et al. 1999. Identification of RIP3, a RIP-like kinase that activates apoptosis and NFκB. Curr. Biol. 9: 539-542.
3. Kasof, G.M., et al. 2000. The RIP-like kinase, RIP3, induces apoptosis and NFκB nuclear translocation and localizes to mitochondria. FEBS Lett. 473: 285-291.
4. Sun, X., et al. 2002. Identification of a novel homotypic interaction motif required for the phosphorylation of receptor-interacting protein (RIP) 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/
6. Yang, Y., et al. 2004. Nucleocytoplasmic shuttling of receptor-interacting protein 3 (RIP3): identification of novel nuclear export and import signals in RIP3. J. Biol. Chem. 279: 38820-38829.
7. Newton, K., et al. 2004. Kinase RIP3 is dispensable for normal NFκBs, signaling by the B-cell and T-cell receptors, tumor necrosis factor receptor 1, and toll-like receptors 2 and 4. Mol. Cell. Biol. 24: 1464-1469.
8. Yang, Y., et al. 2005. RIP3β and RIP3γ, two novel splice variants of receptor-interacting protein 3 (RIP3), downregulate RIP3-induced apoptosis. Biochem. Biophys. Res. Commun. 332: 181-187.
9. Feng, S., et al. 2006. Truncated RIP3 (tRIP3) acts upstream of FADD to induce apoptosis in the human hepatocellular carcinoma cell line QGY-7703. Biochem. Biophys. Res. Commun. 347: 558-565.

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.

PROTOCOLS

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

CHROMOSOMAL LOCATION

Genetic locus: RIPK3 (human) mapping to 14q12.

PRODUCT

RIP3 (h): 293T Lysate represents a lysate of human RIP3 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

RIP3 (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive RIP3 antibodies. Recommended use: 10-20 µl per lane.

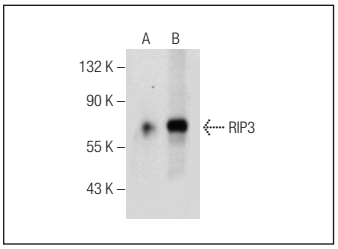
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

RIP3 (B-2): sc-374639 is recommended as a positive control antibody for Western Blot analysis of enhanced human RIP3 expression in RIP3 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

DATA



RIP3 (B-2): sc-374639. Western blot analysis of RIP3 expression in non-transfected: sc-117752 (**A**) and human RIP3 transfected: sc-116869 (**B**) 293T whole cell lysates.

RESEARCH USE

For research use only, not for use in diagnostic procedures.