

RIP3 (C-16): sc-47364

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 down-regulates RIP3-mediated apoptosis.

REFERENCES

1. Sun, X., et al. 1999. RIP3, a novel apoptosis-inducing kinase. *J. Biol. Chem.* 274: 16871-16875.
2. Kasof, G.M., et al. 2000. The RIP-like kinase, RIP3, induces apoptosis and NF- κ B nuclear translocation and localizes to mitochondria. *FEBS Lett.* 473: 285-291.
3. 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.
4. 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.
5. Newton, K., et al. 2004. Kinase RIP3 is dispensable for normal NF- κ Bs, 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.
6. Yang, Y., et al. 2005. RIP3 β and RIP3 γ , two novel splice variants of receptor-interacting protein 3 (RIP3), downregulate RIP3-induced apoptosis. *Biochem. Biophys. Res. Commun.* 332: 181-187.

CHROMOSOMAL LOCATION

Genetic locus: Ripk3 (mouse) mapping to 14 C3.

SOURCE

RIP3 (C-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of RIP3 of mouse 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-47364 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

Store at 4 $^{\circ}$ C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

RIP3 (C-16) is recommended for detection of RIP3 of mouse and rat 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 RIP3 siRNA (m): sc-61483, RIP3 shRNA Plasmid (m): sc-61483-SH and RIP3 shRNA (m) Lentiviral Particles: sc-61483-V.

Molecular Weight of RIP3: 60 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 MarkerTM compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz MarkerTM 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 UltraCruzTM Mounting Medium: sc-24941.

SELECT PRODUCT CITATIONS

1. Upton, J.W., et al. 2012. DAI/ZBP1/DLM-1 complexes with RIP3 to mediate virus-induced programmed necrosis that is targeted by murine cytomegalovirus vIRA. *Cell Host Microbe* 11: 290-297.

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.



Try **RIP3 (B-2): sc-374639**, our highly recommended monoclonal alternative to RIP3 (C-16). Also, for AC, HRP, FITC, PE, Alexa Fluor[®] 488 and Alexa Fluor[®] 647 conjugates, see **RIP3 (B-2): sc-374639**.