

RICK (C-19): sc-8611

BACKGROUND

Members of the tumor necrosis factor receptor (TNFR) family play a key role in the induction of NF κ B activation and cell death. These receptors recruit and assemble signaling complexes that contain a number of death-domain containing proteins, such as RIP. RICK, also designated RIP2 and CARDIAK, is a RIP-like protein kinase involved in regulating both TNFR and CD95-mediated apoptosis. RICK contains an N-terminal serine-threonine kinase catalytic domain and a C-terminal caspase-recruiting domain. The C-terminal domain is sufficient for the apoptotic functions of the protein, while the whole protein is required for the activation of NF κ B. RICK binds specifically to a number of proteins in the TNFR-associated factor (TRAF) family, and these TRAF interactions are involved in recruiting RICK to receptor signaling complexes. Overexpression of RICK leads to the activation of caspase-8 and potentiates apoptosis induced by Fas ligand, FADD, CLARP and caspase-8.

REFERENCES

1. Ware, C.F., et al. 1996. Apoptosis mediated by the TNF-related cytokine and receptor families. *J. Cell Biochem.* 60: 47-55.8610
2. Marsters, S.A., et al. 1996. Apo-3, a new member of the tumor necrosis factor receptor family contains a death domain and activates apoptosis and NF κ B. *Curr. Biol.* 6: 1669-1676.
3. Lee, S.Y., et al. 1997. TRAF2 is essential for JNK but not NF κ B activation and regulates lymphocyte proliferation and survival. *Immunity* 7: 703-713.
4. Inohara, N., et al. 1998. RICK, a novel protein kinase containing a caspase recruitment domain, interacts with CLARP and regulates CD95-mediated apoptosis. *J. Biol. Chem.* 273: 12296-12300.
5. Thome, M., et al. 1998. Identification of CARDIAK, a RIP-like kinase that associates with caspase-1. *Curr. Biol.* 8: 885-888.
6. McCarthy, J.V., et al. 1998. RIP2 is a novel NF κ B-activating and cell death-inducing kinase. *J. Biol. Chem.* 273: 16968-16975.

CHROMOSOMAL LOCATION

Genetic locus RIPK2 (human) mapping to 8q21.3.

SOURCE

RICK (C-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of RICK of human 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-8611 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

RICK (C-19) is recommended for detection of RICK of human 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).

RICK (C-19) is also recommended for detection of RICK in additional species, including bovine and porcine.

Suitable for use as control antibody for RICK siRNA (h): sc-37389, RICK shRNA Plasmid (h): sc-37389-SH and RICK shRNA (h) Lentiviral Particles: sc-37389-V.

Molecular Weight of RICK: 61 kDa.

Positive Controls: SK-MEL-28 cell lysate: sc-2236, HL-60 + LPS cell lysate: sc-24704 or THP-1 cell lysate: sc-2238.

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 Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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) 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 UltraCruz™ Mounting Medium: sc-24941.

SELECT PRODUCT CITATIONS

1. Werneburg, B.G., et al. 2001. Molecular characterization of CD40 signaling intermediates. *J. Biol. Chem.* 276: 43334-43342.

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 **RICK (A-10): sc-166765** or **RICK (25): sc-136059**, our highly recommended monoclonal alternatives to RICK (C-19). Also, for AC, HRP, FITC, PE, Alexa Fluor[®] 488 and Alexa Fluor[®] 647 conjugates, see **RICK (A-10): sc-166765**.