

# RICK (N-19): sc-8610

## BACKGROUND

Members of the tumor necrosis factor receptor (TNFR) family play a key role in the induction of NF $\kappa$ 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 $\kappa$ 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. Over-expression 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.
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 $\kappa$ B. *Curr. Biol.* 6: 1669-1676.
3. Lee, S.Y., et al. 1997. TRAF2 is essential for JNK but not NF $\kappa$ 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 $\kappa$ B-activating and cell death-inducing kinase. *J. Biol. Chem.* 273: 16968-16975.

## CHROMOSOMAL LOCATION

Genetic locus: RIPK2 (human) mapping to 8q21.3; Ripk2 (mouse) mapping to 4 A2.

## SOURCE

RICK (N-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of RICK of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-8610 P, (100  $\mu$ 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

RICK (N-19) is recommended for detection of RICK of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

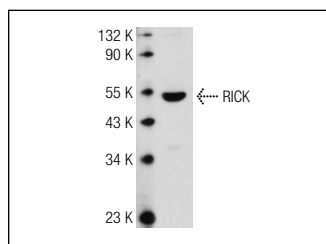
RICK (N-19) is also recommended for detection of RICK in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for RICK siRNA (h): sc-37389, RICK siRNA (m): sc-152957, RICK shRNA Plasmid (h): sc-37389-SH, RICK shRNA Plasmid (m): sc-152957-SH, RICK shRNA (h) Lentiviral Particles: sc-37389-V and RICK shRNA (m) Lentiviral Particles: sc-152957-V.

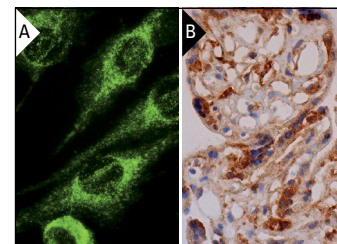
Molecular Weight of RICK: 61 kDa.

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

## DATA



RICK (N-19): sc-8610. Western blot analysis of RICK expression in SK-MEL-28 whole cell lysate.



RICK (N-19): sc-8610. Immunofluorescence staining of methanol-fixed SK-MEL-28 cells showing cytoplasmic localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human placenta tissue showing cytoplasmic staining of trophoblastic cells (B).

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.

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Try **RICK (A-10): sc-166765** or **RICK (25): sc-136059**, our highly recommended monoclonal alternatives to RICK (N-19).