SANTA CRUZ BIOTECHNOLOGY, INC.

RICK (H-300): sc-22763

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Members of the tumor necrosis factor receptor (TNFR) family play a key role in the induction of NFκB 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 NFκB. 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.

CHOMOSOMAL LOCATION

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

SOURCE

RICK (H-300) is a rabbit polyclonal antibody raised against amino acids 241-540 of RICK of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

RICK (H-300) 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 µg per 100-500 µg of total protein (1 ml of cell lysate)], 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 (H-300) is also recommended for detection of RICK in additional species, including equine.

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.

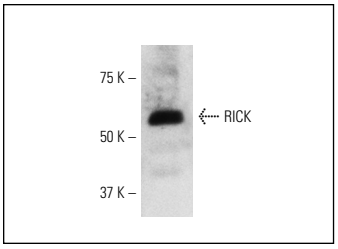
STORAGE

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

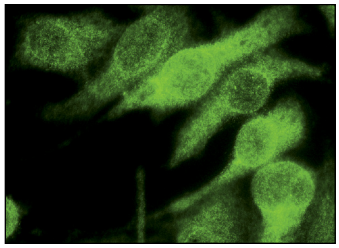
RESEARCH USE

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

DATA



RICK (H-300): sc-22763. Western blot analysis of RICK expression in SK-MEL-28 whole cell lysate.



RICK (H-300): sc-22763. Immunofluorescence staining of methanol-fixed SK-MEL-28 cells showing cytoplasmic localization.

SELECT PRODUCT CITATIONS

1. Li, L., et al. 2005. TRIP6 is a RIP2-associated common signaling component of multiple NFκB activation pathways. J. Cell Sci. 118: 555-563.
2. Lecine, P. and Esmiol, S. 2007. The NOD2-RICK complex signals from the plasma membrane. J. Biol. Chem. 282: 15197-15207.
3. Sebban-Benin, H., et al. 2007. Identification of TRAF6-dependent NEMO polyubiquitination sites through analysis of a new NEMO mutation causing incontinentia pigmenti. Hum. Mol. Genet. 16: 2805-2815.
4. Hasegawa, M., et al. 2008. A critical role of RICK/RIP2 polyubiquitination in Nod-induced NFκB activation. EMBO J. 27: 373-383.
5. Bertrand, M.J., et al. 2009. Cellular inhibitors of apoptosis cIAP1 and cIAP2 are required for innate immunity signaling by the pattern recognition receptors NOD1 and NOD2. Immunity 30: 789-801.
6. Maia, V., et al. 2009. C3G silencing enhances STI-571-induced apoptosis in CML cells through p38 MAPK activation, but it antagonizes STI-571 inhibitory effect on survival. Cell. Signal. 21: 1229-1235.
7. Tigno-Aranjuez, J.T., et al. 2010. Inhibition of RIP2's tyrosine kinase activity limits NOD2-driven cytokine responses. Genes Dev. 24: 2666-2677.
8. Chang Foreman, H.C., et al. 2012. Activation of interferon regulatory factor 5 by site specific phosphorylation. PLoS ONE 7: e33098.

PROTOCOLS

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