

TRIAD3 (T-20): sc-69056



The Power to Question

BACKGROUND

TRIAD protein family members typically contain a double RING finger-linked (DRIL) domain, which consists of 2 RING fingers flanked by a conserved cysteine-rich zinc-binding region, allowing them to interact with several other proteins. TRIAD3 (Triad domain-containing protein 3), also known as E3 ubiquitin-protein ligase RNF216 or zinc finger protein inhibiting NF κ B (ZIN), is a 866 amino acid cytoplasmic protein that acts as a E3 ubiquitin-protein ligase and enhances ubiquitination, and therefore degradation, of TLR4 and TLR9. This evidence suggests that TRIAD3 may regulate the duration and intensity of toll-like receptor signaling. TRIAD3, which is highly expressed in testis and peripheral blood lymphocytes, also inhibits IL-1 and TNF-induced NF κ B activation pathways and promotes RIP and TNF-mediated apoptosis. There are three isoforms of TRIAD3 that exist as a result of alternative splicing events.

REFERENCES

- Hsu, H., Huang, J., Shu, H.B., Baichwal, V. and Goeddel, D.V. 1996. TNF-dependent recruitment of the protein kinase RIP to the TNF receptor-1 signaling complex. *Immunity* 4: 387-396.
- Chen, D., Li, X., Zhai, Z. and Shu, H.B. 2002. A novel zinc finger protein interacts with receptor-interacting protein (RIP) and inhibits tumor necrosis factor (TNF)- and IL1-induced NF κ B activation. *J. Biol. Chem.* 277: 15985-15991.
- Feng, F., Davis, A., Lake, J.A., Carr, J., Xia, W., Burrell, C. and Li, P. 2004. Ring finger protein ZIN interacts with human immunodeficiency virus type 1 Vif. *J. Virol.* 78: 10574-10581.
- Chuang, T.H. and Ulevitch, R.J. 2004. Triad3A, an E3 ubiquitin-protein ligase regulating Toll-like receptors. *Nat. Immunol.* 5: 495-502.
- Fearns, C., Pan, Q., Mathison, J.C. and Chuang, T.H. 2006. Triad3A regulates ubiquitination and proteasomal degradation of RIP1 following disruption of Hsp90 binding. *J. Biol. Chem.* 281: 34592-34600.
- Online Mendelian Inheritance in Man, OMIM™. 2006. Johns Hopkins University, Baltimore, MD. MIM Number: 609948. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
- Bibeau-Poirier, A. and Servant, M.J. 2008. Roles of ubiquitination in pattern-recognition receptors and type I interferon receptor signaling. *Cytokine* 43: 359-367.

CHROMOSOMAL LOCATION

Genetic locus: RNF216 (human) mapping to 7p22.1; Rnf216 (mouse) mapping to 5 G2.

SOURCE

TRIAD3 (T-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of TRIAD3 of human origin.

STORAGE

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

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-69056 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

TRIAD3 (T-20) is recommended for detection of TRIAD3 of mouse, rat and 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).

TRIAD3 (T-20) is also recommended for detection of TRIAD3 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for TRIAD3 siRNA (h): sc-76730, TRIAD3 siRNA (m): sc-76731, TRIAD3 shRNA Plasmid (h): sc-76730-SH, TRIAD3 shRNA Plasmid (m): sc-76731-SH, TRIAD3 shRNA (h) Lentiviral Particles: sc-76730-V and TRIAD3 shRNA (m) Lentiviral Particles: sc-76731-V.

Molecular Weight of TRIAD3: 56 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 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.

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.