# TRIAD3 (D-23): sc-130901



The Power to Question

#### **BACKGROUND**

Triad protein family members typically contain a double RING finger-linked (DRIL) domain, which consists of two 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 $\kappa$ B (ZIN), is a 866 amino acid cytoplasmic protein that acts as a E3 ubiquitin-protein ligase and enhances ubiquination, 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 $\kappa$ 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. TNFdependent 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 NFκB 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.
- 4. Chuang, T.H. and Ulevitch, R.J. 2004. TRIAD3A, an E3 ubiquitin-protein ligase regulating toll-like receptors. Nat. Immunol. 5: 495-502.
- 5. Fearns, C., Pan, Q., Mathison, J.C. and Chuang, T.H. 2006. TRIAD3A regulates ubiquitination and proteasomal degradation of RIP1 following disruption of HSP 90 binding. J. Biol. Chem. 281: 34592-34600.
- 6. 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 patternrecognition 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 (D-23) is a purified rabbit polyclonal antibody raised against a peptide mapping near the C-terminus of TRIAD3 of human origin.

## **PRODUCT**

Each vial contains 100  $\mu g$  IgG in 1.0 ml PBS with < 0.1% sodium azide and 0.1% gelatin.

# **APPLICATIONS**

TRIAD3 (D-23) is recommended for detection of TRIAD3 of mouse 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), 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).

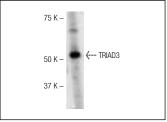
Suitable for use as control antibody for TRIAD3 siRNA (h): sc-76730, TRIAD3 siRNA (m): sc-76731, TRIAD3 shRNA Plasmid (h): sc-76730-SH, TRIAD3 shRNA Plasmid (m): sc-76731-SH, TRIAD3 shRNA (h) Lentiviral Particles: sc-76730-V and TRIAD3 shRNA (m) Lentiviral Particles: sc-76731-V.

Molecular Weight of TRIAD3: 56 kDa.

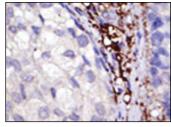
## **RECOMMENDED SECONDARY REAGENTS**

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

# DATA



TRIAD3 (D-23): sc-130901. Western blot analysis of TRIAD3 expression in mouse kidney tissue extract.



TRIAD3 (D-23): sc-130901. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human breast carcinoma tissue showing cytoplasmic localization.

# **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.