

TIRAP (A-11): sc-166149

BACKGROUND

Mammalian Toll-like receptors (TLRs) recognize conserved products of microbial metabolism and activate NF κ B and other signaling pathways through the adapter protein MyD88. MyD88 functions as an adapter protein in the association of IL-1 receptor associated kinase (IRAK) with the IL-1 receptor. MyD88 contains a characteristic N-terminal death domain, which is essential for NF κ B activation and an adjacent Toll/IL-1R homology domain (TIR domain), which is responsible for signal transduction. TIR domain-containing adapter protein (TIRAP), also designated MAL (MyD88 adapter-like), MyD88 or TLR-4 adaptor protein, is a cytoplasmic TIR-domain-containing protein that activates NF κ B, Jun N-terminal kinase and extracellular signal-regulated kinase-1 and -2. TIRAP forms homodimers and heterodimers with MyD88. IRAK-2, but not IRAK-1, is required for the activation of NF κ B by TIRAP which associates with IRAK-2 through the TIR domain. In addition, TIRAP associates with TLR-4, suggesting that it plays a role in TLR-4 signal transduction.

CHROMOSOMAL LOCATION

Genetic locus: TIRAP (human) mapping to 11q24.2.

SOURCE

TIRAP (A-11) is a mouse monoclonal antibody raised against amino acids 1-235 representing full length TIRAP of human origin.

PRODUCT

Each vial contains 200 μ g IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

TIRAP (A-11) is available conjugated to agarose (sc-166149 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-166149 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-166149 PE), fluorescein (sc-166149 FITC), Alexa Fluor[®] 488 (sc-166149 AF488), Alexa Fluor[®] 546 (sc-166149 AF546), Alexa Fluor[®] 594 (sc-166149 AF594) or Alexa Fluor[®] 647 (sc-166149 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-166149 AF680) or Alexa Fluor[®] 790 (sc-166149 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

TIRAP (A-11) is recommended for detection of TIRAP of human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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).

Suitable for use as control antibody for TIRAP siRNA (h): sc-42932, TIRAP shRNA Plasmid (h): sc-42932-SH and TIRAP shRNA (h) Lentiviral Particles: sc-42932-V.

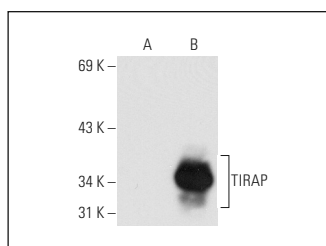
Molecular Weight of TIRAP: 36 kDa.

Positive Controls: Caki-1 cell lysate: sc-2224, ES-2 cell lysate: sc-2224 or TIRAP (h): 293T Lysate: sc-114950.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker[™] Molecular Weight Standards: sc-2035, UltraCruz[®] Blocking Reagent: sc-516214 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 m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz[®] Mounting Medium: sc-24941 or UltraCruz[®] Hard-set Mounting Medium: sc-359850.

DATA



TIRAP (A-11): sc-166149. Western blot analysis of TIRAP expression in non-transfected: sc-117752 (A) and human TIRAP transfected: sc-114950 (B) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

- Aksoy, E., et al. 2012. The p110 δ isoform of the kinase PI(3)K controls the subcellular compartmentalization of TLR4 signaling and protects from endotoxic shock. *Nat. Immunol.* 13: 1045-1054.
- Jakka, P., et al. 2018. Cytoplasmic linker protein CLIP170 negatively regulates TLR4 signaling by targeting the TLR adaptor protein TIRAP. *J. Immunol.* 200: 704-714.
- Rajpoot, S., et al. 2022. TIRAP-mediated activation of p38 MAPK in inflammatory signaling. *Sci. Rep.* 12: 5601.

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.

PROTOCOLS

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