

TRAP-1 (C-8): sc-13134



The Power to Question

BACKGROUND

Transforming growth factor β (TGF β) receptor associated binding protein (TRAP-1) participates in the regulation of the TGF β signaling pathway. TGF β is a secreted ligand that induces transcription of various targeted genes involved in cell proliferation, differentiation and apoptosis by sequentially binding to surface TGF β type II receptors and inducing the autophosphorylation of the type II receptor and the transient transactivation of the type I TGF β receptor. The signal is then propagated through the Smad family of transcription factors, which leads to the expression of the targeted genes. The cytosolic TRAP-1 protein selectively associates with the phosphorylated type I TGF β receptors, but not with the unphosphorylated type I receptors or type II receptors. TRAP-1 binding to the receptor results in the inhibition of TGF β signaling, thereby inhibiting the transcription of TGF β target genes. The carboxy terminus of TRAP-1 is also able to bind to 5-lipoxygenase, a mediator of lipid metabolism for the production of leukotrienes, where it may then regulate the signaling within leukocytes and other inflammatory mediating cells.

CHROMOSOMAL LOCATION

Genetic locus: TGFBRAP1 (human) mapping to 2q12.1.

SOURCE

TRAP-1 (C-8) is a mouse monoclonal antibody raised against amino acids 510-860 at the C-terminus of TRAP-1 (TGF- β receptor associated protein-1) of human origin.

PRODUCT

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

TRAP-1 (C-8) is available conjugated to agarose (sc-13134 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP.

STORAGE

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

APPLICATIONS

TRAP-1 (C-8) is recommended for detection of TRAP-1 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:200-1:1,000), 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 immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).

Suitable for use as control antibody for TRAP-1 siRNA (h): sc-36720, TRAP-1 shRNA Plasmid (h): sc-36720-SH and TRAP-1 shRNA (h) Lentiviral Particles: sc-36720-V.

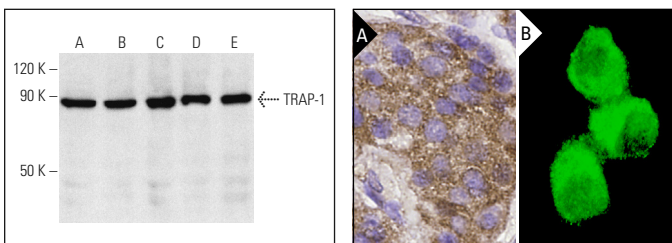
Molecular Weight of TRAP-1: 80 kDa.

Positive Controls: SJRH30 cell lysate: sc-2287, Hep G2 cell lysate: sc-2227 or A-673 cell lysate: sc-2414.

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. 4) Immunohistochemistry: use m-IgG κ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



TRAP-1 (C-8): sc-13134. Western blot analysis of TRAP-1 expression in HL-60 (A), Hep G2 (B), A-673 (C), SJRH30 (D) and MIA PaCa-2 (E) whole cell lysates.

TRAP-1 (C-8): sc-13134. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human pancreas tissue (A). Immunofluorescence staining of methanol-fixed MIA PaCa-2 cells showing cytoplasmic localization (B).

SELECT PRODUCT CITATIONS

- Vasiljevic, N., et al. 2009. The Bcl-x_L inhibitor of apoptosis is preferentially expressed in cutaneous squamous cell carcinoma compared with that in keratoacanthoma. *Int. J. Cancer* 124: 2361-2366.
- van der Kant, R., et al. 2015. Characterization of the mammalian CORVET and HOPS complexes and their modular restructuring for endosome specificity. *J. Biol. Chem.* 290: 30280-30290.
- Sindhwani, A., et al. 2017. *Salmonella* exploits the host endolysosomal tethering factor HOPS complex to promote its intravacuolar replication. *PLoS Pathog.* 13: e1006700.
- Song, C., et al. 2019. Study of the mechanism underlying hsa-miR338-3p downregulation to promote fibrosis of the synovial tissue in osteoarthritis patients. *Mol. Biol. Rep.* 46: 627-637.
- Guo, Q., et al. 2019. Kami-shoyo-san ameliorates sociability deficits in ovariectomized mice, a putative female model of autism spectrum disorder, via facilitating dopamine D₁ and GABA_A receptor functions. *J. Ethnopharmacol.* 236: 231-239.
- Stanková, P., et al. 2021. Western diet decreases the liver mitochondrial oxidative flux of succinate: insight from a murine NAFLD model. *Int. J. Mol. Sci.* 22: 6908.

RESEARCH USE

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