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TRAP-1 (h2): 293T Lysate: sc-176654

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.

REFERENCES

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- Provost, P., Samuelsson, B. and Radmark, O. 1999. Interaction of 5-lipoxygenase with cellular proteins. *Proc. Natl. Acad. Sci. USA* 96: 1881-1885.

CHROMOSOMAL LOCATION

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

PRODUCT

TRAP-1 (h2): 293T Lysate represents a lysate of human TRAP-1 transfected 293T cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

STORAGE

Store at -20 $^{\circ}$ C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

PROTOCOLS

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

APPLICATIONS

TRAP-1 (h2): 293T Lysate is suitable as a Western Blotting positive control for human reactive TRAP-1 antibodies. Recommended use: 10-20 μ l per lane.

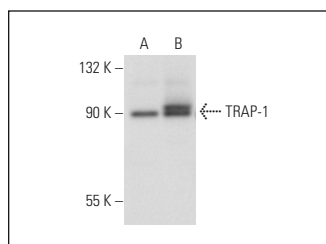
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

TRAP-1 (C-8): sc-13134 is recommended as a positive control antibody for Western Blot analysis of enhanced human TRAP-1 expression in TRAP-1 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

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 MarkerTM Molecular Weight Standards: sc-2035, UltraCruz[®] Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

DATA



TRAP-1 (C-8): sc-13134. Western blot analysis of TRAP-1 expression in non-transfected: sc-117752 (A) and human TRAP-1 transfected: sc-176654 (B) 293T whole cell lysates.

RESEARCH USE

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