

STRAP (22): sc-136083

BACKGROUND

Smad proteins play an important role in the intracellular signalling of the TGF β superfamily of extracellular polypeptides. Two Smad proteins, Smad6 and Smad7, function as antagonists to TGF β signalling. STRAP, another antagonist to the TGF β signalling pathway, specifically interacts with Smad7, but not Smad6, to synergistically block TGF β -induced transcriptional activation. The gene encoding the human homolog of STRAP (as designated in mouse), called UNR-interacting protein, maps to chromosome 12p12.3. UNR-interacting protein is 97% homologous to STRAP at the amino acid level. The UNR-interacting protein binds UNR, a cytoplasmic RNA-binding protein with five cold-shock domains that is involved in RNA translation. The presence of the STRAP gene in a variety of species from mammals to yeast, indicates that STRAP function is evolutionarily conserved in eukaryotic cells.

REFERENCES

- Datta, P.K., Chytil, A., Gorska, A.E. and Moses, H.L. 1998. Identification of STRAP, a novel WD domain protein in transforming growth factor β signaling. *J. Biol. Chem.* 273: 34671-34674.
- Hunt, S.L., Hsuan, J.J., Totty, N. and Jackson, R.J. 1999. UNR, a cellular cytoplasmic RNA-binding protein with five cold-shock domains, is required for internal initiation of translation of human rhinovirus RNA. *Genes Dev.* 13: 437-448.
- Datta, P.K. and Moses, H.L. 2000. STRAP and Smad7 synergize in the inhibition of transforming growth factor β signaling. *Mol. Cell. Biol.* 20: 3157-3167.
- Zhao, J., Shi, W., Chen, H. and Warburton, D. 2000. Smad7 and Smad6 differentially modulate transforming growth factor β induced inhibition of embryonic lung morphogenesis. *J. Biol. Chem.* 275: 23992-23997.
- LocusLink Report (LocusID: 11171). <http://www.ncbi.nlm.nih.gov/LocusLink/>

CHROMOSOMAL LOCATION

Genetic locus: STRAP (human) mapping to 12p12.3; Strap (mouse) mapping to 6 G1.

SOURCE

STRAP (22) is a mouse monoclonal antibody raised against amino acids 42-154 of STRAP of mouse origin.

PRODUCT

Each vial contains 200 μ g IgG₁ in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

Store at 4 $^{\circ}$ C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PROTOCOLS

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

APPLICATIONS

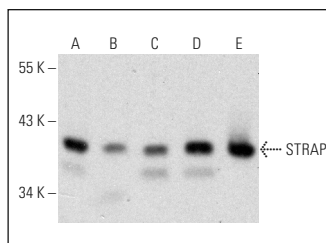
STRAP (22) is recommended for detection of STRAP of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)] and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

Suitable for use as control antibody for STRAP siRNA (h): sc-44129, STRAP siRNA (m): sc-153911, STRAP shRNA Plasmid (h): sc-44129-SH, STRAP shRNA Plasmid (m): sc-153911-SH, STRAP shRNA (h) Lentiviral Particles: sc-44129-V and STRAP shRNA (m) Lentiviral Particles: sc-153911-V.

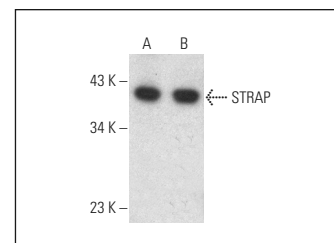
Molecular Weight of STRAP: 39 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, mouse liver extract: sc-2256 or rat brain extract: sc-2392.

DATA



STRAP (22): sc-136083. Western blot analysis of STRAP expression in HeLa (A), Hep G2 (B), SW480 (C), MDA-MB-231 (D) and NIH/3T3 (E) whole cell lysates.



STRAP (22): sc-136083. Western blot analysis of STRAP expression in mouse liver (A) and rat brain (B) tissue extracts.

SELECT PRODUCT CITATIONS

- Sharum, I.B., Granados-Aparici, S., Warrander, F.C., Tournant, F.P., and Fenwick M.A. 2017. Serine threonine kinase receptor associated protein regulates early follicle development in the mouse ovary. *Reproduction* 153: 221-231.
- Moore, K.S., Yagci, N., van Alphen, F., Meijer, A.B., 't Hoen, P.A.C. and von Lindern, M 2018. STRAP associates with Csde1 and affects expression of select Csde1-bound transcripts. *PLoS ONE* 13: e0201690.

RESEARCH USE

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