SANTA CRUZ BIOTECHNOLOGY, INC.

STRAP (N-17): sc-14552

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Smad proteins play an important role in the intracellular signalling of the TGFβ superfamily of extracellular polypeptides. Two Smad proteins, Smad6 and Smad7, function as antagonists to TGFβ signalling. STRAP, another antagonist to the TGFβ signalling pathway, specifically interacts with Smad7, but not Smad6, to synergistically block TGFβ-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

1. 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.
2. 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.
3. 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.
4. 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.
5. 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 (N-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of STRAP of mouse origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-14552 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

STRAP (N-17) 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 µg per 100-500 µg 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); may cross-react with LOC344382.

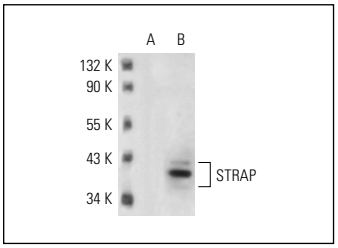
STRAP (N-17) is also recommended for detection of STRAP in additional species, including canine, bovine, porcine and avian.

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.

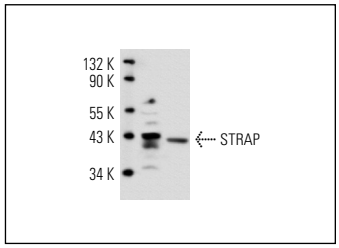
Molecular Weight of STRAP: 39 kDa.

Positive Controls: STRAP (h): 293 Lysate: sc-110599, HeLa whole cell lysate: sc-2200 or mouse liver extract: sc-2256.

DATA



STRAP (N-17): sc-14552. Western blot analysis of STRAP expression in non-transfected: sc-110760 (**A**) and human STRAP transfected: sc-110599 (**B**) 293 whole cell lysates.



STRAP (N-17): sc-14552. Western blot analysis of STRAP expression in HeLa whole cell lysate (**A**) and mouse liver tissue extract (**B**).

RESEARCH USE

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

PROTOCOLS

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

MONOS Satisfaction Guaranteed

Try **STRAP (E-8): sc-377345** or **STRAP (3G6): sc-130671**, our highly recommended monoclonal alternatives to STRAP (N-17).