

# Rpp30 (S-14): sc-23041

## BACKGROUND

Ribonuclease P (PNase P) and Ribonuclease MRP (RNase MRP) are small nuclear ribonucleoproteins (snRNPs) that act on RNA substrates *in vitro*. RNase P and RNase MRP, which accumulate in the nucleolus, have a similar RNA component and also have several protein subunits in common. RNase P, which consists of a complex of an RNA species (H1 RNA), POP1 (processing of precursor 1), POP5 (processing of precursor 5), and at least 7 Rpps (including Rpp14, Rpp29, Rpp30 and Rpp38), removes the 5' leader sequences from precursor tRNA molecules. In particular, the nucleolar-localizing RNase P catalyzes the hydrolysis of a specific phosphodiester bond in precursor tRNA to form the mature 5' end of tRNA. The structurally related RNase MRP plays an essential role in the formation of the 5' end of 5.8S rRNA. Both RNase P and RNase MRP are associated with Th/To ribonucleoproteins; Rpp30 and Rpp38 have specifically been implicated as Th autoantigens which contribute to the autoimmune disease systemic sclerosis.

## REFERENCES

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3. Pluk, H., van Eenennaam, H., Rutjes, S.A., Pruijn, G.J. and van Venrooij, W.J. 1999. RNA-protein interactions in the human RNase MRP ribonucleoprotein complex. RNA 5: 512-524.
4. Altman, S. 2000. The road to RNase P. Nat. Struct. Biol. 7: 827-828.
5. Kurz, J.C. and Fierke, C.A. 2000. Ribonuclease P: a ribonucleoprotein enzyme. Curr. Opin. Chem. Biol. 4: 553-558.
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7. van Eenennaam, H., van der Heijden, A., Janssen, R.J., van Venrooij, W.J. and Pruijn, G.J. 2001. Basic domains target protein subunits of the RNase MRP complex to the nucleolus independently of complex association. Mol. Biol. Cell 12: 3680-3689.

## CHROMOSOMAL LOCATION

Genetic locus: RPP30 (human) mapping to 10q23.31; Rpp30 (mouse) mapping to 19 C2.

## SOURCE

Rpp30 (S-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Rpp30 of human 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-23041 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

Rpp30 (S-14) is recommended for detection of Rpp30 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

Rpp30 (S-14) is also recommended for detection of Rpp30 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Rpp30 siRNA (h): sc-38352, Rpp30 siRNA (m): sc-38353, Rpp30 shRNA Plasmid (h): sc-38352-SH, Rpp30 shRNA Plasmid (m): sc-38353-SH, Rpp30 shRNA (h) Lentiviral Particles: sc-38352-V and Rpp30 shRNA (m) Lentiviral Particles: sc-38353-V.

Positive Controls: NIH/3T3 whole cell lysate: sc-2210 or HeLa whole cell lysate: sc-2200.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## 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](http://www.scbt.com) or our catalog for detailed protocols and support products.



Try **Rpp30 (2931D5a): sc-81374**, our highly recommended monoclonal alternative to Rpp30 (S-14).