

Rpp25 (A-3): sc-514323

BACKGROUND

Ribonuclease P (RNase 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, POP1, POP5, and at least 7 Rpps, removes the 5-prime leader sequences from precursor tRNA molecules. Rpp25 (ribonuclease P/MRP 25 kDa subunit) is a 199 amino acid nuclear protein that belongs to the histone-like Alba family and functions as a component of nuclear RNase P and RNase MRP ribonucleoproteins. Rpp25 is encoded by a gene that maps to human chromosome 15q24.2 and mouse chromosome 9 B.

REFERENCES

- Jarrous, N., et al. 1998. Autoantigenic properties of some protein subunits of catalytically active complexes of human ribonuclease P. *RNA* 4: 407-417.
- van Eenennaam, H., et al. 2000. Architecture and function of the human endonucleases RNase P and RNase MRP. *IUBMB Life* 49: 265-272.
- van Eenennaam, H., et al. 2001. Basic domains target protein subunits of the RNase MRP complex to the nucleolus independently of complex association. *Mol. Biol. Cell* 12: 3680-3689.
- Jiang, T., et al. 2001. Protein-RNA interactions in the subunits of human nuclear RNase P. *RNA* 7: 937-941.
- Guerrier-Takada, C., et al. 2002. Purification and characterization of Rpp25, an RNA-binding protein subunit of human ribonuclease P. *RNA* 8: 290-295.

CHROMOSOMAL LOCATION

Genetic locus: RPP25 (human) mapping to 15q24.2; Rpp25 (mouse) mapping to 9 B.

SOURCE

Rpp25 (A-3) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 1-21 at the N-terminus of Rpp25 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Rpp25 (A-3) is available conjugated to agarose (sc-514323 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-514323 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-514323 PE), fluorescein (sc-514323 FITC), Alexa Fluor® 488 (sc-514323 AF488), Alexa Fluor® 546 (sc-514323 AF546), Alexa Fluor® 594 (sc-514323 AF594) or Alexa Fluor® 647 (sc-514323 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-514323 AF680) or Alexa Fluor® 790 (sc-514323 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-514323 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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APPLICATIONS

Rpp25 (A-3) is recommended for detection of Rpp25 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

Suitable for use as control antibody for Rpp25 siRNA (h): sc-90130, Rpp25 siRNA (m): sc-153112, Rpp25 shRNA Plasmid (h): sc-90130-SH, Rpp25 shRNA Plasmid (m): sc-153112-SH, Rpp25 shRNA (h) Lentiviral Particles: sc-90130-V and Rpp25 shRNA (m) Lentiviral Particles: sc-153112-V.

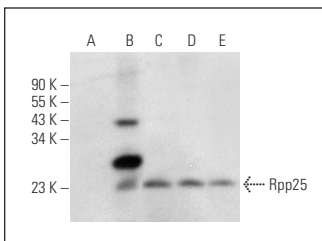
Molecular Weight of Rpp25: 21 kDa.

Positive Controls: Rpp25 (h): 293T Lysate: sc-371368, HeLa whole cell lysate: sc-2200 or MCF7 whole cell lysate: sc-2206.

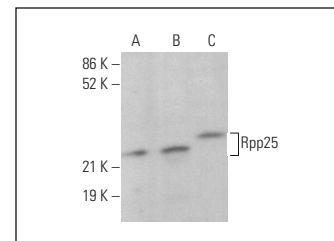
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ 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-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



Rpp25 (A-3): sc-514323. Western blot analysis of Rpp25 expression in non-transfected 293T: sc-117752 (A), human Rpp25 transfected 293T: sc-371368 (B), ZR-75-1 (C), HeLa (D) and MCF7 (E) whole cell lysates.



Rpp25 (A-3): sc-514323. Western blot analysis of Rpp25 expression in MCF7 (A), HeLa (B) and Caco-2 (C) whole cell lysates. Detection reagent used: m-IgGκ BP-HRP: sc-516102.

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 for detailed protocols and support products.