

RRP12 (A-3): sc-398593

BACKGROUND

Ribosomes are the organelles that catalyze protein synthesis. Each ribosome consists of a small 40S subunit and a large 60S subunit. Together these subunits are composed of 4 RNA species and approximately 80 structurally distinct proteins. RRP12 (ribosomal RNA processing 12) is a 1,297 amino acid single-pass membrane protein that participates in ribosomal assembly. Expressed in testis and ovary, RRP12 belongs to the RRP12 family and localizes to the nucleus. RRP12 may be involved in coupling the control of ribosome production to the regulation of other cellular processes during cell cycle progression. In conjunction with Dim2, RRP12 is thought to be involved in the nucleocytoplasmic translocation of pre-ribosomes during ribosome assembly. RRP12 exists two alternatively spliced isoforms and is encoded by a gene located on human chromosome 10q24.1.

REFERENCES

1. Kenmochi, N., et al. 1998. A map of 75 human ribosomal protein genes. *Genome Res.* 8: 509-523.
2. Yoshihama, M., et al. 2002. The human ribosomal protein genes: sequencing and comparative analysis of 73 genes. *Genome Res.* 12: 379-390.
3. Oeffinger, M., et al. 2004. A pre-ribosome-associated HEAT-repeat protein is required for export of both ribosomal subunits. *Genes Dev.* 18: 196-209.
4. Porter, S.E., et al. 2005. Separation of the *Saccharomyces cerevisiae* Paf1 complex from RNA polymerase II results in changes in its subnuclear localization. *Eukaryot. Cell* 4: 209-220.

CHROMOSOMAL LOCATION

Genetic locus: RRP12 (human) mapping to 10q24.1; Rrp12 (mouse) mapping to 19 C3.

SOURCE

RRP12 (A-3) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 538-576 within an internal region of RRP12 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.

RRP12 (A-3) is available conjugated to agarose (sc-398593 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-398593 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-398593 PE), fluorescein (sc-398593 FITC), Alexa Fluor® 488 (sc-398593 AF488), Alexa Fluor® 546 (sc-398593 AF546), Alexa Fluor® 594 (sc-398593 AF594) or Alexa Fluor® 647 (sc-398593 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-398593 AF680) or Alexa Fluor® 790 (sc-398593 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-398593 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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APPLICATIONS

RRP12 (A-3) is recommended for detection of RRP12 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 RRP12 siRNA (h): sc-90733, RRP12 siRNA (m): sc-153129, RRP12 shRNA Plasmid (h): sc-90733-SH, RRP12 shRNA Plasmid (m): sc-153129-SH, RRP12 shRNA (h) Lentiviral Particles: sc-90733-V and RRP12 shRNA (m) Lentiviral Particles: sc-153129-V.

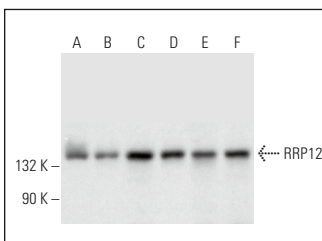
Molecular Weight of RRP12: 144 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, Jurkat whole cell lysate: sc-2204 or HEK293 whole cell lysate: sc-45136.

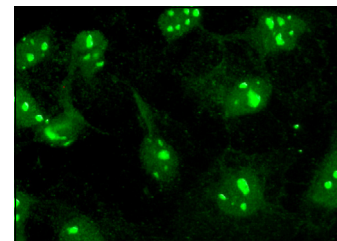
RECOMMENDED SUPPORT REAGENTS

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



RRP12 (A-3): sc-398593. Western blot analysis of RRP12 expression in HeLa (A) and Jurkat (B) nuclear extracts and HeLa (C), Jurkat (D), NTERA-2 cl.D1 (E) and HEK293 (F) whole cell lysates.



RRP12 (A-3): sc-398593. Immunofluorescence staining of formalin-fixed A-431 cells showing nucleolar and nuclear localization.

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.