

Ribosomal Protein L22 (D-7): sc-373993

BACKGROUND

Ribosomal Protein L22 is also known as heparin-binding protein Hbp15, because it binds heparin in the submandibular gland and brain. This small protein is also associated with two small nuclear RNAs called EBERs (Epstein-Barr encoded RNAs). These RNAs are synthesized in large amounts by human B lymphocytes infected with Epstein-Barr virus (EBV). Ribosomal Protein L22, like L4, contains a globular domain that sits on the surface of the large ribosomal subunit and an extended loop that penetrates its core. These extensions contact multiple domains of 23S rRNA, indicating a potential, but not essential, role in rRNA folding during ribosomal assembly.

CHROMOSOMAL LOCATION

Genetic locus: RPL22 (human) mapping to 1p36.31; Rpl22 (mouse) mapping to 4 E2.

SOURCE

Ribosomal Protein L22 (D-7) is a mouse monoclonal antibody raised against amino acids 17-122 mapping within an internal region of Ribosomal Protein L22 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.

Ribosomal Protein L22 (D-7) is available conjugated to agarose (sc-373993 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-373993 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-373993 PE), fluorescein (sc-373993 FITC), Alexa Fluor® 488 (sc-373993 AF488), Alexa Fluor® 546 (sc-373993 AF546), Alexa Fluor® 594 (sc-373993 AF594) or Alexa Fluor® 647 (sc-373993 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-373993 AF680) or Alexa Fluor® 790 (sc-373993 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA

APPLICATIONS

Ribosomal Protein L22 (D-7) is recommended for detection of Ribosomal Protein L22 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 Ribosomal Protein L22 siRNA (h): sc-63349, Ribosomal Protein L22 siRNA (m): sc-63350, Ribosomal Protein L22 shRNA Plasmid (h): sc-63349-SH, Ribosomal Protein L22 shRNA Plasmid (m): sc-63350-SH, Ribosomal Protein L22 shRNA (h) Lentiviral Particles: sc-63349-V and Ribosomal Protein L22 shRNA (m) Lentiviral Particles: sc-63350-V.

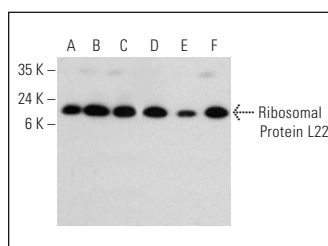
Molecular Weight of Ribosomal Protein L22: 15 kDa.

Positive Controls: A-431 whole cell lysate: sc-2201, HeLa whole cell lysate: sc-2200 or Hep G2 cell lysate: sc-2227.

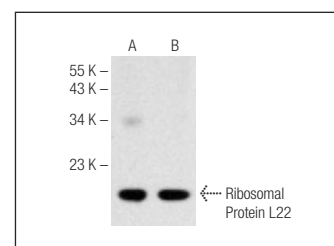
RECOMMENDED SUPPORT REAGENTS

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



Ribosomal Protein L22 (D-7): sc-373993. Western blot analysis of Ribosomal Protein L22 expression in A-431 (A), HeLa (B), Jurkat (C), RAW 264.7 (D), C6 (E) and H19-7/IGF-IR (F) whole cell lysates.



Ribosomal Protein L22 (D-7): sc-373993. Western blot analysis of Ribosomal Protein L22 expression in A-431 (A) and Hep G2 (B) whole cell lysates.

SELECT PRODUCT CITATIONS

- Clement, C.C., et al. 2013. Protein expression profiles of human lymph and plasma mapped by 2D-DIGE and 1D SDS-PAGE coupled with nanoLC-ESI-MS/MS bottom-up proteomics. *J. Proteomics* 78: 172-187.
- Wang, Y., et al. 2014. p53 is positively regulated by miR-542-3p. *Cancer Res.* 74: 3218-3227.
- Qu, J., et al. 2015. Kindlin-3 interacts with the ribosome and regulates c-Myc expression required for proliferation of chronic myeloid leukemia cells. *Sci. Rep.* 5: 18491.
- Rozenbaum, M., et al. 2018. Translatome regulation in neuronal injury and axon regrowth. *eNeuro* 5: ENEURO.0276-17.2018.
- Del Toro, N., et al. 2019. Ribosomal Protein Rpl22/eL22 regulates the cell cycle by acting as an inhibitor of the Cdk4-cyclin D complex. *Cell Cycle* 18: 759-770.
- Ye, C., et al. 2020. BCCIP is required for nucleolar recruitment of eIF6 and 12S pre-rRNA production during 60S ribosome biogenesis. *Nucleic Acids Res.* E-published.

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.