

Ribosomal Protein L21 (D-7): sc-393663

BACKGROUND

Ribosomes, the organelles that catalyze protein synthesis, are composed of a small subunit (40S) and a large subunit (60S) that consist of over 80 distinct ribosomal proteins. Mammalian ribosomal proteins are encoded by multigene families that contain processed pseudogenes and one functional intron-containing gene within their coding regions. Ribosomal Protein L21, whose alternative names include 60S ribosomal protein L21, DKFZp686C06101, L21, FLJ27458, MGC104275, MGC71252 or MGC104274, is a 160 amino acid protein belonging to the ribosomal protein L21e family. Ribosomal Protein L21 localizes to cytoplasm and like most ribosomal proteins, Ribosomal Protein L22 exists as multiple processed pseudogenes that are scattered throughout the genome. The gene encoding Ribosomal Protein L21 maps to human chromosome 13q12.2.

REFERENCES

1. Nakamichi, N.N., et al. 1986. Ribosomal protein gene sequences map to human chromosomes 5, 8, and 17. *Somat. Cell Mol. Genet.* 12: 225-236.
2. Frigerio, J.M., et al. 1995. Cloning, sequencing and expression of the L5, L21, L27a, L28, S5, S9, S10 and S29 human ribosomal protein mRNAs. *Biochim. Biophys. Acta* 1262: 64-68.
3. Frigerio, J.M., et al. 1995. Analysis of 2166 clones from a human colorectal cancer cDNA library by partial sequencing. *Hum. Mol. Genet.* 4: 37-43.
4. Kenmochi, N., et al. 1998. A map of 75 human ribosomal protein genes. *Genome Res.* 8: 509-523.
5. Online Mendelian Inheritance in Man, OMIM™. 1999. Johns Hopkins University, Baltimore, MD. MIM Number: 603636. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>

CHROMOSOMAL LOCATION

Genetic locus: RPL21 (human) mapping to 13q12.2; Rpl21 (mouse) mapping to 5 G3, Gm15682 (mouse) mapping to 5 E1.

SOURCE

Ribosomal Protein L21 (D-7) is a mouse monoclonal antibody raised against amino acids 45-148 mapping within an internal region of Ribosomal Protein L21 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 L21 (D-7) is available conjugated to agarose (sc-393663 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-393663 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-393663 PE), fluorescein (sc-393663 FITC), Alexa Fluor® 488 (sc-393663 AF488), Alexa Fluor® 546 (sc-393663 AF546), Alexa Fluor® 594 (sc-393663 AF594) or Alexa Fluor® 647 (sc-393663 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-393663 AF680) or Alexa Fluor® 790 (sc-393663 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

Ribosomal Protein L21 (D-7) is recommended for detection of Ribosomal Protein L21 of mouse, rat and human origin and Ribosomal Protein L21-like of mouse 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 L21 siRNA (h): sc-76432, Ribosomal Protein L21 shRNA Plasmid (h): sc-76432-SH and Ribosomal Protein L21 shRNA (h) Lentiviral Particles: sc-76432-V.

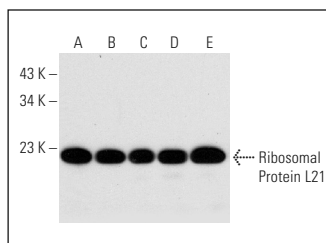
Molecular Weight of Ribosomal Protein L21: 18 kDa.

Positive Controls: Raji whole cell lysate: sc-364236, Hep G2 cell lysate: sc-2227 or RAW 264.7 whole cell lysate: sc-2211.

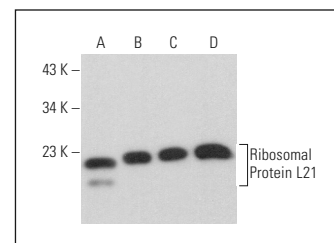
RECOMMENDED SUPPORT REAGENTS

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 L21 (D-7): sc-393663. Western blot analysis of Ribosomal Protein L21 expression in Raji (A), K-562 (B), HeLa (C), Hep G2 (D) and RAW 264.7 (E) whole cell lysates.



Ribosomal Protein L21 (D-7): sc-393663. Western blot analysis of Ribosomal Protein L21 expression in SW480 (A), AT3B-1 (B), C6 (C) and F9 (D) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Khan, M.I.K., et al. 2021. The ribosomal protein eL21 interacts with the protein lysine methyltransferase SMYD2 and regulates its steady state levels. *Biochim. Biophys. Acta Mol. Cell Res.* 1868: 119079.

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.