

Ribosomal Protein S21 (G-11): sc-514411

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 S21 (RPS21), which is also known as 40S ribosomal protein S21 or 8.2 kDa differentiation factor, is an 83 amino acid protein which belongs to the ribosomal protein S21e family. Ribosomal Protein S21 is part of the 40S subunit and localizes to cytoplasm. Alternative Ribosomal Protein S21 splice variants have been described, although none have been verified. Like most ribosomal proteins, Ribosomal Protein S21 exists as multiple processed pseudogenes that are scattered throughout the genome.

REFERENCES

1. Segal, M. 1976. Interactions of ACTH and norepinephrine on the activity of rat hippocampal cells. *Neuropharmacology* 15: 329-333.
2. Bhat, K.S. and Morrison, S.G. 1993. Primary structure of human Ribosomal Protein S21. *Nucleic Acids Res.* 21: 2939.
3. Kostanyan, I.A., et al. 1994. A new human leukemia cell 8.2 kDa differentiation factor: isolation and primary structure. *FEBS Lett.* 356: 327-329.
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: 180477. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>

CHROMOSOMAL LOCATION

Genetic locus: RPS21 (human) mapping to 20q13.33; Rps21 (mouse) mapping to 2 H4.

SOURCE

Ribosomal Protein S21 (G-11) is a mouse monoclonal antibody raised against amino acids 1-76 mapping at the N-terminus of Ribosomal Protein S21 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 S21 (G-11) is available conjugated to agarose (sc-514411 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-514411 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-514411 PE), fluorescein (sc-514411 FITC), Alexa Fluor® 488 (sc-514411 AF488), Alexa Fluor® 546 (sc-514411 AF546), Alexa Fluor® 594 (sc-514411 AF594) or Alexa Fluor® 647 (sc-514411 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-514411 AF680) or Alexa Fluor® 790 (sc-514411 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

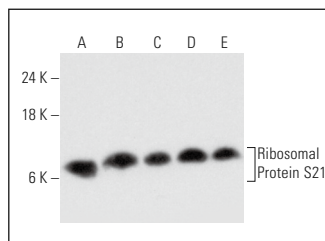
Ribosomal Protein S21 (G-11) is recommended for detection of Ribosomal Protein S21 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting 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 S21 siRNA (h): sc-76401, Ribosomal Protein S21 siRNA (m): sc-152941, Ribosomal Protein S21 shRNA Plasmid (h): sc-76401-SH, Ribosomal Protein S21 shRNA Plasmid (m): sc-152941-SH, Ribosomal Protein S21 shRNA (h) Lentiviral Particles: sc-76401-V and Ribosomal Protein S21 shRNA (m) Lentiviral Particles: sc-152941-V.

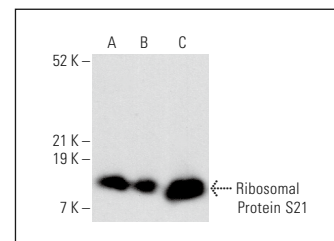
Molecular Weight of Ribosomal Protein S21: 9 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, HUV-EC-C whole cell lysate: sc-364180 or HeLa whole cell lysate: sc-2200.

DATA



Ribosomal Protein S21 (G-11): sc-514411. Western blot analysis of Ribosomal Protein S21 expression in Jurkat (A), HUV-EC-C (B), HeLa (C), K-562 (D) and Hep G2 (E) whole cell lysates.



Ribosomal Protein S21 (G-11): sc-514411. Western blot analysis of Ribosomal Protein S21 expression in HeLa (A), HEL 92.1.7 (B) and NIH/3T3 (C) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Park, E.J., et al. 2021. Whole cigarette smoke condensates induce accumulation of amyloid β precursor protein with oxidative stress in murine astrocytes. *Toxics* 9: 150.
2. Qiang, M., et al. 2021. Cockayne syndrome-associated CSA and CSB mutations impair ribosome biogenesis, ribosomal protein stability, and global protein folding. *Cells* 10: 1616.

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.