

Ribosomal Protein L14 (A-10): sc-518234

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 L14, also known as L14, RPL14, RL14, CTG-B33 or CAG-ISL-7, is a 213 amino acid protein that is a component of the 60S subunit. Localized to the cytoplasm, Ribosomal Protein L14 belongs to the L14e family of ribosomal proteins and functions in protein synthesis. Ribosomal Protein L14 contains a basic region-leucine zipper (bZIP)-like domain and a polymorphic polyaniline tract. The polyaniline tract is believed to participate in transcription regulation. Like most ribosomal proteins, Ribosomal Protein L14 exists as multiple processed pseudogenes that are scattered throughout the genome.

REFERENCES

1. Aoki, M., et al. 1996. Identification of trinucleotide repeat-containing genes in human pancreatic islets. *Diabetes* 45: 157-164.
2. De Rinaldis, E., et al. 1998. The binding sites for *Xenopus laevis* FIII/YY1 in the first exon of L1 and L14 ribosomal protein genes are dispensable for promoter expression. *Eur. J. Biochem.* 255: 563-569.
3. Shriver, S.P., et al. 1998. Trinucleotide repeat length variation in the human ribosomal protein L14 gene (RPL14): localization to 3p21.3 and loss of heterozygosity in lung and oral cancers. *Mutat. Res.* 406: 9-23.

CHROMOSOMAL LOCATION

Genetic locus: RPL14 (human) mapping to 3p22.1; Rpl14 (mouse) mapping to 9 F4.

SOURCE

Ribosomal Protein L14 (A-10) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 94-116 of Ribosomal Protein L14 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 L14 (A-10) is available conjugated to agarose (sc-518234 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-518234 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-518234 PE), fluorescein (sc-518234 FITC), Alexa Fluor® 488 (sc-518234 AF488), Alexa Fluor® 546 (sc-518234 AF546), Alexa Fluor® 594 (sc-518234 AF594) or Alexa Fluor® 647 (sc-518234 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-518234 AF680) or Alexa Fluor® 790 (sc-518234 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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RESEARCH USE

For research use only, not for use in diagnostic procedures.

APPLICATIONS

Ribosomal Protein L14 (A-10) is recommended for detection of Ribosomal Protein L14 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 L14 siRNA (h): sc-78387, Ribosomal Protein L14 siRNA (m): sc-152896, Ribosomal Protein L14 shRNA Plasmid (h): sc-78387-SH, Ribosomal Protein L14 shRNA Plasmid (m): sc-152896-SH, Ribosomal Protein L14 shRNA (h) Lentiviral Particles: sc-78387-V and Ribosomal Protein L14 shRNA (m) Lentiviral Particles: sc-152896-V.

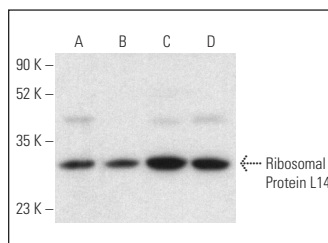
Molecular Weight of Ribosomal Protein L14: 23 kDa.

Positive Controls: NIH/3T3 whole cell lysate: sc-2210, PC-12 cell lysate: sc-2250 or Jurkat whole cell lysate: sc-2204.

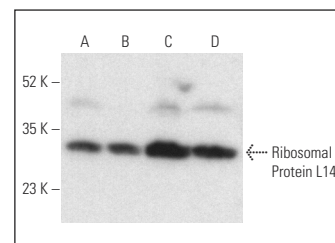
RECOMMENDED SUPPORT REAGENTS

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 L14 (A-10): sc-518234. Western blot analysis of Ribosomal Protein L14 expression in Jurkat (A), MCF7 (B), NIH/3T3 (C) and PC-12 (D) whole cell lysates. Detection reagent used: m-IgG₁ BP-HRP: sc-525408.



Ribosomal Protein L14 (A-10): sc-518234. Western blot analysis of Ribosomal Protein L14 expression in Jurkat (A), MCF7 (B), NIH/3T3 (C) and PC-12 (D) whole cell lysates. Detection reagent used: m-IgG Fc BP-HRP: sc-525409.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.