SANTA CRUZ BIOTECHNOLOGY, INC.

Ribosomal Protein L3 (C-14): sc-86826

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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 L3, also known as RPL3 or TARBP-B, is a 403 amino acid protein that localizes to the cytoplasm and belongs to the L3P family of ribosomal proteins. Expressed as multiple alternatively spliced isoforms, Ribosomal Protein L3 is able to bind to HIV-1 mRNA, possibly activating HIV-1 protein translation. Like most ribosomal proteins, Ribosomal Protein L3 exists as multiple processed pseudogenes that are scattered throughout the genome.

REFERENCES

1. Ou, J.H., et al. 1987. Cloning and characterization of a human ribosomal protein gene with enhanced expression in fetal and neoplastic cells. Nucleic Acids Res. 15: 8919-8934.
2. Reddy, T.R., et al. 1995. Molecular cloning and characterization of a TAR-binding nuclear factor from T cells. AIDS Res. Hum. Retroviruses 11: 663-669.
3. Wool, I.G., et al. 1995. Structure and evolution of mammalian ribosomal proteins. Biochem. Cell Biol. 73: 933-947.
4. Kenmochi, N., et al. 1998. A map of 75 human ribosomal protein genes. Genome Res. 8: 509-523.
5. Duga, S., et al. 2000. The intron-containing L3 ribosomal protein gene (RPL3): sequence analysis and identification of U43 and of two novel intronic small nucleolar RNAs. Biochim. Biophys. Acta 1490: 225-236.

CHROMOSOMAL LOCATION

Genetic locus: RPL3 (human) mapping to 22q13.1; Rpl3 (mouse) mapping to 15 E1.

SOURCE

Ribosomal Protein L3 (C-14) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping at the C-terminus of Ribosomal Protein L3 of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-86826 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

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.

APPLICATIONS

Ribosomal Protein L3 (C-14) is recommended for detection of Ribosomal Protein L3 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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); non cross-reactive with other Ribosomal Protein family members.

Ribosomal Protein L3 (C-14) is also recommended for detection of Ribosomal Protein L3 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for Ribosomal Protein L3 siRNA (h): sc-76400, Ribosomal Protein L3 siRNA (m): sc-152909, Ribosomal Protein L3 shRNA Plasmid (h): sc-76400-SH, Ribosomal Protein L3 shRNA Plasmid (m): sc-152909-SH, Ribosomal Protein L3 shRNA (h) Lentiviral Particles: sc-76400-V and Ribosomal Protein L3 shRNA (m) Lentiviral Particles: sc-152909-V.

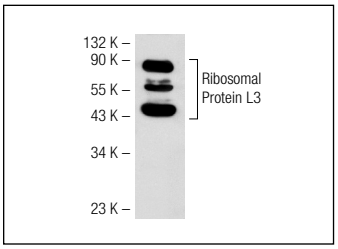
Molecular Weight of Ribosomal Protein L3: 46 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203 or U-698-M whole cell lysate: sc-364799.

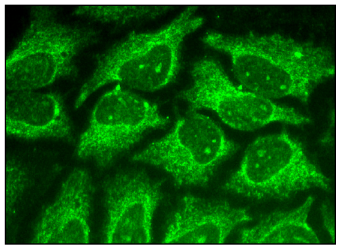
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



Ribosomal Protein L3 (C-14): sc-86826. Western blot analysis of Ribosomal Protein L3 expression in U-698-M whole cell lysate.



Ribosomal Protein L3 (C-14): sc-86826. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic and nucleolar localization.

PROTOCOLS

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