

Ribosomal Protein L7 (C-16): sc-103150

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 L7, also known as 60S ribosomal protein L7, RPL7, humL7-1 or MGC117326, is a 248 amino acid protein which localizes to the cytoplasm and attaches to G-rich structures in mRNAs and in 28S rRNA. Ribosomal Protein L7 is a member of the ribosomal protein L30P family and has been found to be an autoantigen in patients with systemic autoimmune diseases, including systemic lupus erythematosus. Ribosomal Protein L7 inhibits cell-free translation of mRNAs and has a regulatory function in the translation apparatus. The gene encoding human Ribosomal Protein L7 maps to human chromosome 8q21.11 and like most ribosomal proteins, Ribosomal Protein L7 exists as multiple processed pseudogenes that are scattered throughout the genome.

REFERENCES

1. Meyuhas, O., et al. 1990. The mouse ribosomal protein L7 gene. Its primary structure and functional analysis of the promoter region. *J. Biol. Chem.* 265: 11465-11473.
2. Hemmerich, P., et al. 1993. Structural and functional properties of ribosomal protein L7 from humans and rodents. *Nucleic Acids Res.* 21: 223-231.
3. Sapi, E., et al. 1994. The first intron of human c-fms proto-oncogene contains a processed pseudogene (RPL7P) for ribosomal protein L7. *Genomics* 22: 641-645.
4. von Mikecz, A., et al. 1994. Characterization of eukaryotic protein L7 as a novel autoantigen which frequently elicits an immune response in patients suffering from systemic autoimmune disease. *Immunobiology* 192: 137-154.
5. Neu, E., et al. 1995. Autoantibodies against eukaryotic protein L7 in patients suffering from systemic lupus erythematosus and progressive systemic sclerosis: frequency and correlation with clinical, serological and genetic parameters. *The SLE Study Group. Clin. Exp. Immunol.* 100: 198-204.

CHROMOSOMAL LOCATION

Genetic locus: RPL7 (human) mapping to 8q21.11; Rpl7 (mouse) mapping to 1 A3.

SOURCE

Ribosomal Protein L7 (C-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of Ribosomal Protein L7 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-103150 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Ribosomal Protein L7 (C-16) is recommended for detection of Ribosomal Protein L7 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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 L family members.

Ribosomal Protein L7 (C-16) is also recommended for detection of Ribosomal Protein L7 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for Ribosomal Protein L7 siRNA (h): sc-77708, Ribosomal Protein L7 siRNA (m): sc-152925, Ribosomal Protein L7 shRNA Plasmid (h): sc-77708-SH, Ribosomal Protein L7 shRNA Plasmid (m): sc-152925-SH, Ribosomal Protein L7 shRNA (h) Lentiviral Particles: sc-77708-V and Ribosomal Protein L7 shRNA (m) Lentiviral Particles: sc-152925-V.

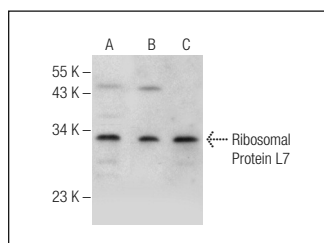
Molecular Weight of Ribosomal Protein L7: 29 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, Jurkat whole cell lysate: sc-2204 or Ramos cell lysate: sc-2216.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



Ribosomal Protein L7 (C-16): sc-103150. Western blot analysis of Ribosomal Protein L7 expression in HeLa (A), Jurkat (B) and Ramos (C) whole cell lysates.

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.