

Ribosomal Protein LP0 (T-18): sc-102086

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. Ribosomal Protein LP0, also known as RPLP0, P0, L10E or RPP0, is a 317 amino acid cytoplasmic protein that is the human ortholog of the yeast L10 ribosomal protein. One of several components of the 60S ribosomal subunit, Ribosomal Protein LP0 functions as a neutral phosphoprotein that shares high similarity with Ribosomal Protein LP1 and Ribosomal Protein LP2. Together, these proteins form a pentameric complex (comprised of LP1 and LP2 dimers and one LP0 monomer) that regulates ribosome assembly and plays a role in translation initiation. Overexpression of Ribosomal Protein LP0 is associated with liver and breast cancer, suggesting a role for Ribosomal Protein LP0 in tumorigenesis. Like other mammalian ribosomal proteins, Ribosomal Protein LP0 exists as multiple processed pseudogenes that are found throughout the genome.

REFERENCES

1. Rich, B.E., et al. 1987. Human acidic ribosomal phosphoproteins P0, P1, and P2: analysis of cDNA clones, *in vitro* synthesis, and assembly. *Mol. Cell. Biol.* 7: 4065-4074.
2. Chan, S.H., et al. 2001. Trichosanthin interacts with acidic ribosomal proteins P0 and P1 and mitotic checkpoint protein MAD2B. *Eur. J. Biochem.* 268: 2107-2112.
3. Mazumder, B., et al. 2003. Regulated release of L13a from the 60S ribosomal subunit as a mechanism of transcript-specific translational control. *Cell* 115: 187-198.
4. Tchórzewski, M., et al. 2003. The subcellular distribution of the human ribosomal "stalk" components: P1, P2 and P0 proteins. *Int. J. Biochem. Cell Biol.* 35: 203-211.

CHROMOSOMAL LOCATION

Genetic locus: RPLP0 (human) mapping to 12q24.23; Rplp0 (mouse) mapping to 5 F.

SOURCE

Ribosomal Protein LP0 (T-18) is a purified rabbit polyclonal antibody raised against an internal region of Ribosomal Protein LP0 of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide, 0.1% gelatin and < 0.02% sucrose.

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 LP0 (T-18) is recommended for detection of Ribosomal Protein LP0 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)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Ribosomal Protein LP0 (T-18) is also recommended for detection of Ribosomal Protein LP0 in additional species, including equine, bovine and canine.

Suitable for use as control antibody for Ribosomal Protein LP0 siRNA (h): sc-106507, Ribosomal Protein LP0 siRNA (m): sc-141184, Ribosomal Protein LP0 shRNA Plasmid (h): sc-106507-SH, Ribosomal Protein LP0 shRNA Plasmid (m): sc-141184-SH, Ribosomal Protein LP0 shRNA (h) Lentiviral Particles: sc-106507-V and Ribosomal Protein LP0 shRNA (m) Lentiviral Particles: sc-141184-V.

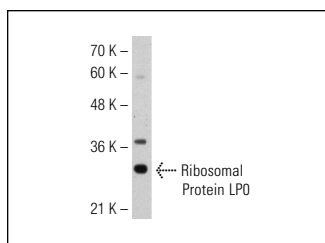
Molecular Weight of Ribosomal Protein LP0: 34 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204.

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).

DATA



Ribosomal Protein LP0 (T-18): sc-102086. Western blot analysis of Ribosomal Protein LP0 expression in Jurkat whole cell lysate.

SELECT PRODUCT CITATIONS

1. Sorby, L.A., et al. 2011. The endothelin axis in the metastatic process of colon carcinoma. *Anticancer Res.* 31: 861-869.

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Try **Ribosomal Protein LP0 (1B4): sc-293260**, our highly recommended monoclonal alternative to Ribosomal Protein LP0 (T-18).