

# Ribosomal Protein S16 (T-19): sc-102087

## 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 S16, also known as RPS16, is a 146 amino acid cytoplasmic protein that belongs to the S9P ribosomal protein family. One of several components of the 40S subunit, Ribosomal Protein S16 may play a role in ribosome assembly and translation initiation. Elevated levels of Ribosomal Protein S16 may be associated with pancreatic and breast cancer, suggesting a possible role for Ribosomal Protein S16 in tumorigenesis. Like other mammalian ribosomal proteins, Ribosomal Protein S16 exists as multiple processed pseudogenes that are found throughout the genome.

## REFERENCES

1. Batra, S.K., et al. 1991. Molecular cloning and sequence analysis of the human Ribosomal Protein S16. *J. Biol. Chem.* 266: 6830-6833.
2. Wool, I.G., et al. 1995. Structure and evolution of mammalian ribosomal proteins. *Biochem. Cell Biol.* 73: 933-947.
3. Vladimirov, S.N., et al. 1996. Characterization of the human small-ribosomal-subunit proteins by N-terminal and internal sequencing, and mass spectrometry. *Eur. J. Biochem.* 239: 144-149.
4. Kenmochi, N., et al. 1998. A map of 75 human ribosomal protein genes. *Genome Res.* 8: 509-523.
5. Yoshihama, M., et al. 2002. The human ribosomal protein genes: sequencing and comparative analysis of 73 genes. *Genome Res.* 12: 379-390.
6. Kapp, L.D. and Lorsch, J.R. 2004. The molecular mechanics of eukaryotic translation. *Annu. Rev. Biochem.* 73: 657-704.
7. Andersen, J.S., et al. 2005. Nucleolar proteome dynamics. *Nature* 433: 77-83.

## CHROMOSOMAL LOCATION

Genetic locus: RPS16 (human) mapping to 19q13.2; Rps16 (mouse) mapping to 7 A3.

## SOURCE

Ribosomal Protein S16 (T-19) is a purified rabbit polyclonal antibody raised against the N-terminus of Ribosomal Protein S16 of human origin.

## PRODUCT

Each vial contains 100 µg IgG in 1.0 ml 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 S16 (T-19) is recommended for detection of Ribosomal Protein S16 of mouse, rat, human, canine and zebrafish 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), immunohistochemistry (including paraffin-embedded sections) (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 S16 siRNA (h): sc-97200, Ribosomal Protein S16 siRNA (m): sc-152937, Ribosomal Protein S16 shRNA Plasmid (h): sc-97200-SH, Ribosomal Protein S16 shRNA Plasmid (m): sc-152937-SH, Ribosomal Protein S16 shRNA (h) Lentiviral Particles: sc-97200-V and Ribosomal Protein S16 shRNA (m) Lentiviral Particles: sc-152937-V.

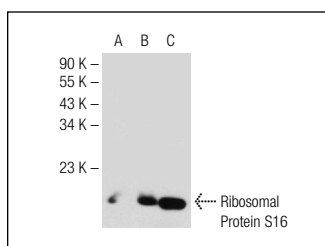
Molecular Weight of Ribosomal Protein S16: 16 kDa.

Positive Controls: Ribosomal Protein S16 (h2): 293T Lysate: sc-174471, Jurkat whole cell lysate: sc-2204 or HeLa whole cell lysate: sc-2200.

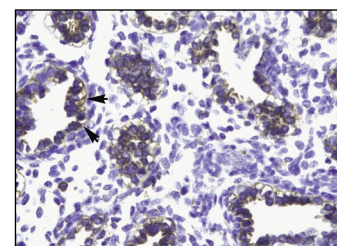
## RECOMMENDED SECONDARY REAGENTS

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. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

## DATA



Ribosomal Protein S16 (T-19): sc-102087. Western blot analysis of Ribosomal Protein S16 expression in non-transfected 293T: sc-117752 (A), human Ribosomal Protein S16 transfected 293T: sc-174471 (B) and HeLa (C) whole cell lysates.



Ribosomal Protein S16 (T-19): sc-102087. Immunoperoxidase staining of formalin fixed, paraffin-embedded human lung tissue showing cytoplasmic staining.

## SELECT PRODUCT CITATIONS

1. Mu, X., et al. 2015. HIV-1 exploits the host factor RuvB-like 2 to balance viral protein expression. *Cell Host Microbe* 18: 233-242.