

# Ribosomal Protein S6 (H-4): sc-74576

## BACKGROUND

The genes encoding for mammalian ribosomal proteins comprise multigene families that consist predominantly of multiple processed pseudogenes and one functional intro-containing gene within their coding regions. The rpS6 gene gives rise to Ribosomal Protein S6 (also designated RPS6). RPS6 is the major substrate of protein kinases in eukaryotic ribosomes. Sequence comparison has identified RPS6 as the equivalent of the Ribosomal Protein S10 from *Saccharomyces cerevisiae*. The sequence comparison of ribosomal proteins from evolutionarily distant eukaryotes, such as yeast and human, indicates that the structure and probably the function of RPS6 has been highly conserved.

## CHROMOSOMAL LOCATION

Genetic locus: RPS6 (human) mapping to 9p22.1; Rps6 (mouse) mapping to 4 C4.

## SOURCE

Ribosomal Protein S6 (H-4) is a mouse monoclonal antibody raised against the N-terminus of Ribosomal Protein S6 of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

Ribosomal Protein S6 (H-4) is recommended for detection of Ribosomal Protein S6 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), 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 S6 siRNA (h): sc-36424, Ribosomal Protein S6 siRNA (m): sc-36425, Ribosomal Protein S6 shRNA Plasmid (h): sc-36424-SH, Ribosomal Protein S6 shRNA Plasmid (m): sc-36425-SH, Ribosomal Protein S6 shRNA (h) Lentiviral Particles: sc-36424-V and Ribosomal Protein S6 shRNA (m) Lentiviral Particles: sc-36425-V.

Molecular Weight of Ribosomal Protein S6: 32 kDa.

Positive Controls: HEK293 whole cell lysate: sc-45136, CCRF-CEM cell lysate: sc-2225 or MDA-MB-435S whole cell lysate: sc-364184.

## STORAGE

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

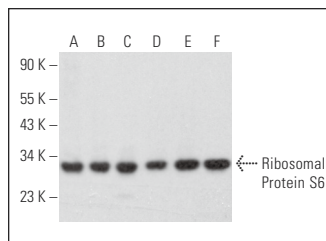
## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.

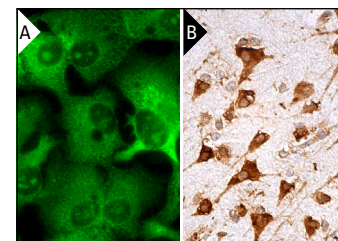
## RESEARCH USE

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

## DATA



Ribosomal Protein S6 (H-4): sc-74576. Western blot analysis of Ribosomal Protein S6 expression in HEK293 (A), CCRF-CEM (B), MDA-MB-435S (C), C3H/10T1/2 (D), HEL 92.1.7 (E) and Jurkat (F) whole cell lysates.



Ribosomal Protein S6 (H-4): sc-74576. Immunofluorescence staining of formalin-fixed Hep G2 cells showing cytoplasmic localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human brain tissue showing cytoplasmic staining of neuronal cells (B).

## SELECT PRODUCT CITATIONS

- De Stefano, D., et al. 2014. Restoration of CFTR function in patients with cystic fibrosis carrying the F508del-CFTR mutation. *Autophagy* 10: 2053-2074.
- Wang, Z., et al. 2015. Targeting miR-381-NEFL axis sensitizes glioblastoma cells to temozolomide by regulating stemness factors and multidrug resistance factors. *Oncotarget* 6: 3147-3164.
- Huynh, F.C., et al. 2017. Trastuzumab stimulation of Ribosomal Protein S6 kinase 1 (S6K1) predicts *de novo* trastuzumab resistance. *Biochem. Biophys. Res. Commun.* 483: 739-744.
- Díaz-López, I., et al. 2019. An mRNA-binding channel in the ES6S region of the translation 48S-PIC promotes RNA unwinding and scanning. *Elife* 8: e48246.
- Clapper, E., et al. 2020. The regulation of Bcr-Abl in hypoxia is through the mTOR pathway. *Leuk. Lymphoma* 62: 967-978.
- Cheng, S., et al. 2022. mTOR contributes to the proteome diversity through transcriptome-wide alternative splicing. *Int. J. Mol. Sci.* 23: 12416.
- Wu, M., et al. 2023. Nucleoporin Seh1 maintains Schwann cell homeostasis by regulating genome stability and necroptosis. *Cell Rep.* 42: 112802.
- Li, Y., et al. 2023. G<sub>αi1/3</sub> mediate Netrin-1-CD146-activated signaling and angiogenesis. *Theranostics* 13: 2319-2336.
- Čunátová, K., et al. 2024. Mitochondrial translation is the primary determinant of secondary mitochondrial complex I deficiencies. *iScience* 27: 110560.



See **Ribosomal Protein S6 (C-8): sc-74459** for Ribosomal Protein S6 antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor<sup>®</sup> 488, 546, 594, 647, 680 and 790.