Ribosomal Protein S13 (K-16): sc-162097



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 S13 (RPS13), also known as 40S ribosomal protein S13, is a 151 amino acid cytoplasmic protein belonging to the Ribosomal Protein S15P family. The gene encoding Ribosomal Protein S13 maps to human chromosome 11p15.1 and mouse chromosome 7 and contains multiple phosphorylated residues. Like most ribosomal proteins, Ribosomal Protein S13 exists as multiple processed pseudogenes that are scattered throughout the genome.

REFERENCES

- Suzuki, K., Olvera, J. and Wool, I.G. 1990. The primary structure of rat Ribosomal Protein S13. Biochem. Biophys. Res. Commun. 171: 519-524.
- 2. Chadeneau, C., LeMoullac, B. and Denis, M.G. 1993. Cloning and analysis of the human S13 ribosomal protein cDNA. Nucleic Acids Res. 21: 2945.
- 3. Kenmochi, N., Kawaguchi, T., Rozen, S., Davis, E., Goodman, N., Hudson, T.J., Tanaka, T. and Page, D.C. 1998. A map of 75 human ribosomal protein genes. Genome Res. 8: 509-523.
- 4. Caldwell, G.M., Eddy, R.L., Day, C.D., Haley, L.H., Cooper, P.R., Sait, S.S., Hejtmancik, F., Smith, R.J., Morton, C.C., Higgins, M.J. and Shows, T.B. 2001. Mapping of genes and transcribed sequences in a gene rich 400-kb region on human chromosome 11p15.1 → p14. Cytogenet. Cell Genet. 92: 103-107.
- Shi, Y., Zhai, H., Wang, X., Han, Z., Liu, C., Lan, M., Du, J., Guo, C., Zhang, Y., Wu, K. and Fan, D. 2004. Ribosomal Proteins S13 and L23 promote multidrug resistance in gastric cancer cells by suppressing drug-induced apoptosis. Exp. Cell Res. 296: 337-346.
- Malygin, A., Parakhnevitch, N. and Karpova, G. 2005. Human Ribosomal Protein S13: cloning, expression, refolding, and structural stability. Biochim. Biophys. Acta 1747: 93-97.
- 7. Yu, Y., Ji, H., Doudna, J.A. and Leary, J.A. 2005. Mass spectrometric analysis of the human 40S ribosomal subunit: native and HCV IRES-bound complexes. Protein Sci. 14: 1438-1446.

CHROMOSOMAL LOCATION

Genetic locus: RPS13 (human) mapping to 11p15.1; Rps13 (mouse) mapping to 7 F1.

SOURCE

Ribosomal Protein S13 (K-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Ribosomal Protein S13 of human origin.

STORAGE

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

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-162097 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Ribosomal Protein S13 (K-16) is recommended for detection of Ribosomal Protein S13 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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 Proteins.

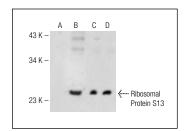
Ribosomal Protein S13 (K-16) is also recommended for detection of Ribosomal Protein S13 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for Ribosomal Protein S13 siRNA (h): sc-96869, Ribosomal Protein S13 siRNA (m): sc-152934, Ribosomal Protein S13 shRNA Plasmid (h): sc-96869-SH, Ribosomal Protein S13 shRNA Plasmid (m): sc-152934-SH, Ribosomal Protein S13 shRNA (h) Lentiviral Particles: sc-96869-V and Ribosomal Protein S13 shRNA (m) Lentiviral Particles: sc-152934-V.

Molecular Weight of Ribosomal Protein S13: 17 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, K-562 whole cell lysate: sc-2203 or Ribosomal Protein S13 (h3): 293T Lysate: sc-113723.

DATA



Ribosomal Protein S13 (K-16): sc-162097. Western blot analysis of Ribosomal Protein S13 expression in non-transfected 293T: sc-117752 (A), human Ribosomal Protein S13 transfected 293T: sc-113723 (B), Jurkat (C) and COLO 320DM (D) whole cell lysates.

RESEARCH USE

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



Try **Ribosomal Protein S13 (C-3):** sc-398690, our highly recommended monoclonal alternative to Ribosomal Protein S13 (K-16).