

# Ribosomal Protein S13 (C-3): sc-398690

## 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 F1 and contains multiple phosphorylated residues. Like most ribosomal proteins, Ribosomal Protein S13 exists as multiple processed pseudogenes that are scattered throughout the genome.

## REFERENCES

1. Suzuki, K., et al. 1990. The primary structure of rat Ribosomal Protein S13. *Biochem. Biophys. Res. Commun.* 171: 519-524.
2. Chadeneau, C., et al. 1993. Cloning and analysis of the human S13 Ribosomal Protein cDNA. *Nucleic Acids Res.* 21: 2945.
3. Kenmochi, N., et al. 1998. A map of 75 human ribosomal protein genes. *Genome Res.* 8: 509-523.
4. Caldwell, G.M., et al. 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.

## CHROMOSOMAL LOCATION

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

## SOURCE

Ribosomal Protein S13 (C-3) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 3-34 at the N-terminus of Ribosomal Protein S13 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.

Ribosomal Protein S13 (C-3) is available conjugated to agarose (sc-398690 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-398690 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-398690 PE), fluorescein (sc-398690 FITC), Alexa Fluor® 488 (sc-398690 AF488), Alexa Fluor® 546 (sc-398690 AF546), Alexa Fluor® 594 (sc-398690 AF594) or Alexa Fluor® 647 (sc-398690 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-398690 AF680) or Alexa Fluor® 790 (sc-398690 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-398690 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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## APPLICATIONS

Ribosomal Protein S13 (C-3) is recommended for detection of Ribosomal Protein S13 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

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.

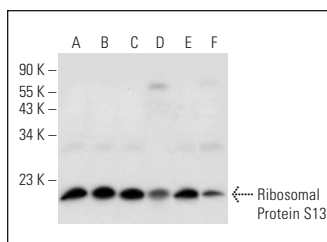
Molecular Weight of Ribosomal Protein S13: 17 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, HeLa whole cell lysate: sc-2200 or Hep G2 cell lysate: sc-2227.

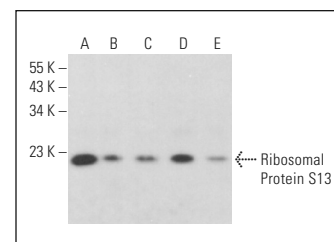
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

## DATA



Ribosomal Protein S13 (C-3): sc-398690. Western blot analysis of Ribosomal Protein S13 expression in Jurkat (A), COLO 320DM (B), HeLa (C), Hep G2 (D), K-562 (E) and THP-1 (F) whole cell lysates.



Ribosomal Protein S13 (C-3): sc-398690. Western blot analysis of Ribosomal Protein S13 expression in Jurkat (A), WI-38 (B), JAR (C) and 3T3-L1 (D) whole cell lysates and Sol8 nuclear extract (E).

## 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.