SANTA CRUZ BIOTECHNOLOGY, INC.

Ribosomal Protein S5 (464-J): sc-100832

SANTA CRUZ BIOTECHNOLOGY
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 S5, also known as RPS5, is a 204 amino acid component of the 40S complex. Localized to the cytoplasm, Ribosomal Protein S5 belongs to the S7P family of ribosomal proteins and functions in protein synthesis. Like most ribosomal proteins, Ribosomal Protein S5 exists as multiple processed pseudogenes that are scattered throughout the genome. Ribosomal Protein S5 is expressed at variable amounts in colorectal cancer cells, suggesting a possible role in carcinogenesis.

REFERENCES

1. Hori, N., et al. 1993. A cDNA sequence of human ribosomal protein, homologue of yeast S28. Nucleic Acids Res. 21: 4394.
2. Kenmochi, N., et al. 1998. A map of 75 human ribosomal protein genes. Genome Res. 8: 509-523.

CHROMOSOMAL LOCATION

Genetic locus: RPS5 (human) mapping to 19q13.43; Rps5 (mouse) mapping to 7 A1.

SOURCE

Ribosomal Protein S5 (464-J) is a mouse monoclonal antibody raised against recombinant Ribosomal Protein S5 of human origin.

PRODUCT

Each vial contains 100 µg IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

Ribosomal Protein S5 (464-J) is recommended for detection of Ribosomal Protein S5 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)], 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 S5 siRNA (h): sc-97457, Ribosomal Protein S5 siRNA (m): sc-152951, Ribosomal Protein S5 shRNA Plasmid (h): sc-97457-SH, Ribosomal Protein S5 shRNA Plasmid (m): sc-152951-SH, Ribosomal Protein S5 shRNA (h) Lentiviral Particles: sc-97457-V and Ribosomal Protein S5 shRNA (m) Lentiviral Particles: sc-152951-V.

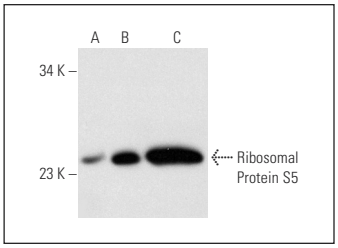
Molecular Weight of Ribosomal Protein S5: 23 kDa.

Positive Controls: Ribosomal Protein S5 (h): 293 Lysate: sc-112957 or HeLa whole cell lysate: sc-2200.

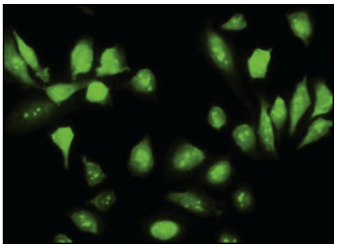
RECOMMENDED SUPPORT REAGENTS

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 S5 (464-J): sc-100832. Western blot analysis of Ribosomal Protein S5 expression in non-transfected 293: sc-110760 (**A**), human Ribosomal Protein S5 transfected 293: sc-112957 (**B**) and HeLa (**C**) whole cell lysates.



Ribosomal Protein S5 (464-J): sc-100832. Immunofluorescence staining of paraformaldehyde-fixed HeLa cells showing nuclear and cytoplasmic localization.

SELECT PRODUCT CITATIONS

1. Xu, W.H., et al. 2014. Bioactive compound reveals a novel function for Ribosomal Protein S5 in hepatic stellate cell activation and hepatic fibrosis. Hepatology 60: 648-660.
2. Lupinacci, F.C.S., et al. 2019. Polysome profiling of a human glioblastoma reveals intratumoral heterogeneity. Int. J. Mol. Sci. 20: 2177.

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.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.