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.

REFERENCES


CHROMOSOMAL LOCATION

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

SOURCE

Ribosomal Protein S6 (H-4) is a mouse monoclonal antibody raised against amino acids 1-249 mapping at the N-terminus of Ribosomal Protein S6 of human origin.

PRODUCT

Each vial contains 200 µg IgG 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 1:100-1:500), 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.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:
1) Western Blotting: use m-IgG B-HRP: sc-516102 or m-IgG B-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), 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 m-IgG B-PITC: sc-516140 or m-IgG B-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 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 62 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


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.

CONJUGATES

See Ribosomal Protein S6 (C-8): sc-74459 for Ribosomal Protein S6 antibody conjugates, including AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647.