SANTA CRUZ BIOTECHNOLOGY, INC.

Ribosomal Protein S2 (H-233): sc-135389

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Ribosomal subunits are synthesized in the nucleus, and mature 40S and 60S subunits are exported stoichiometrically into the cytoplasm. Both 40S and 60S subunits are composed of 4 RNA species and approximately 80 structurally distinct proteins. Mitochondrial ribosomes consist of a small 28S subunit and a large 39S subunit. Ribosomal proteins have the ability to pass through the nuclear envelope in the native state, making them the largest of the structures accommodated by the nuclear pore complexes. The nuclear export of ribosomal subunits is a unidirectional, saturable and energy-dependent process.Ribosomal Protein S2 is part of the 40S subunit that mediates aminoacyl-transfer RNA binding to the ribosome, thereby affecting the fidelity of mRNA translation. Ribosomal Protein S2 is methylated by protein arginine methyltransferase 3 (PRMT3), which may inhibit ubiquitin-mediated proteolysis of Ribosomal Protein S2. Ribosomal Protein S2 expression has been shown to be elevated in human premalignant leukoplakia, head and neck squamous cell carcinomas and colon and breast cancers, making it a potentially useful diagnostic marker for some human tumors.

CHROMOSOMAL LOCATION

Genetic locus: RPS2 (human) mapping to 16p13.3; Rps2 (mouse) mapping to 17 A3.3.

SOURCE

Ribosomal Protein S2 (H-233) is a rabbit polyclonal antibody raised against amino acids 61-293 mapping at the C-terminus of Ribosomal Protein S2 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

Ribosomal Protein S2 (H-233) is recommended for detection of Ribosomal Protein S2 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).

Ribosomal Protein S2 (H-233) is also recommended for detection of Ribosomal Protein S2 in additional species, including equine, canine, bovine and avian.

Suitable for use as control antibody for Ribosomal Protein S2 siRNA (h): sc-93184, Ribosomal Protein S2 siRNA (m): sc-152940, Ribosomal Protein S2 shRNA Plasmid (h): sc-93184-SH, Ribosomal Protein S2 shRNA Plasmid (m): sc-152940-SH, Ribosomal Protein S2 shRNA (h) Lentiviral Particles: sc-93184-V and Ribosomal Protein S2 shRNA (m) Lentiviral Particles: sc-152940-V.

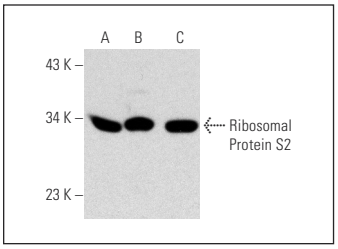
Molecular Weight of Ribosomal Protein S2: 30 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, K-562 whole cell lysate: sc-2203 or Jurkat whole cell lysate: sc-2204.

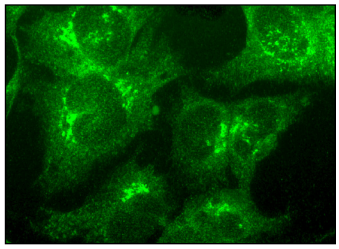
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), 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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



Ribosomal Protein S2 (H-233): sc-135389. Western blot analysis of Ribosomal Protein S2 expression in Jurkat (**A**), K-562 (**B**) and HeLa (**C**) whole cell lysates.



Ribosomal Protein S2 (H-233): sc-135389. Immunofluorescence staining of formalin-fixed HepG2 cells showing cytoplasmic localization.

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 or our catalog for detailed protocols and support products.