SANTA CRUZ BIOTECHNOLOGY, INC.

p-Ribosomal Protein S6 (50.Ser 235/236): sc-293144

BACKGROUND

The genes encoding for mammalian ribosomal proteins comprise multigene families that consist predominantly of multiple processed pseudogenes and one functional intron-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. RPS6 phosphorylation is stimulated by growth factors, tumor promoting agents and mitogens. It is dephosphorylated at growth arrest.

CHROMOSOMAL LOCATION

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

SOURCE

p-Ribosomal Protein S6 (50.Ser 235/236) is a mouse monoclonal antibody raised against a short amino acid sequence containing Ser 235 and Ser 236 phosphorylated Ribosomal Protein S6 of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

p-Ribosomal Protein S6 (50.Ser 235/236) is available conjugated to agarose (sc-293144 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; and to HRP (sc-293144 HRP), 200 µg/ml, for WB, IHC(P) and ELISA.

APPLICATIONS

p-Ribosomal Protein S6 (50.Ser 235/236) is recommended for detection of Ser 235 and Ser 236 phosphorylated Ribosomal Protein S6 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)] 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 p-Ribosomal Protein S6: 28 kDa.

Positive Controls: 3T3-L1 cell lysate: sc-2243, NIH/3T3 whole cell lysate: sc-2210 or HeLa whole cell lysate: sc-2200.

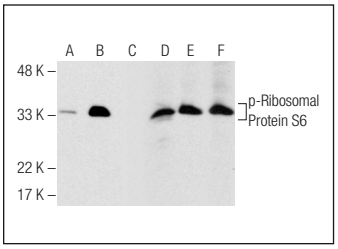
STORAGE

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

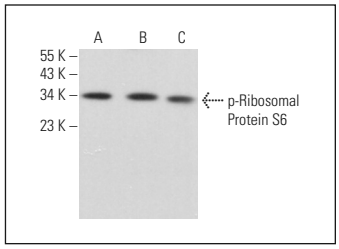
RESEARCH USE

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

DATA



Western blot analysis of Ribosomal Protein S6 phosphorylation in untreated (**A**,**D**), EGF treated (**B**,**E**) and EGF and lambda protein phosphatase (sc-200312A) treated (**C**,**F**) HEK293 whole cell lysates. Antibodies tested include p-Ribosomal Protein S6 (50.Ser 235/236): sc-293144 (**A**,**B**,**C**) and Ribosomal Protein S6 (C-8): sc-74459 (**D**,**E**,**F**).



p-Ribosomal Protein S6 (50.Ser 235/236): sc-293144. Western blot analysis of Ribosomal Protein S6 phosphorylation in NIH/3T3 (**A**), 3T3-L1 (**B**) and HeLa (**C**) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Brohée, L., et al. 2015. Lipin-1 regulates cancer cell phenotype and is a potential target to potentiate rapamycin treatment. Oncotarget 6: 11264-11280.
2. Andersson, A.M., et al. 2016. Autophagy induction targeting mTORC1 enhances *Mycobacterium tuberculosis* replication in HIV co-infected human macrophages. Sci. Rep. 6: 28171.
3. da Rocha, A.L., et al. 2016. Downhill running excessive training inhibits hypertrophy in mice skeletal muscles with different fiber type composition. J. Cell. Physiol. 231: 1045-1056.
4. da Rocha, A.L., et al. 2017. Exhaustive training leads to hepatic fat accumulation. J. Cell. Physiol. 232: 2094-2103.
5. Ge, S., et al. 2017. Function of miR-152 as a tumor suppressor in human breast cancer by targeting PIK3CA. Oncol. Res. 25: 1363-1371.
6. da Rocha, A.L., et al. 2018. Excessive training induces molecular signs of pathologic cardiac hypertrophy. J. Cell. Physiol. 233: 8850-8861.
7. Lee, M.K., et al. 2018. *Pyropia yezoensis* protein supplementation prevents dexamethasone-induced muscle atrophy in C57BL/6 mice. Mar. Drugs 16 pii: E328.
8. Jones, G.G., et al. 2019. SHOC2 phosphatase-dependent RAF dimerization mediates resistance to MEK inhibition in RAS-mutant cancers. Nat. Commun. 10: 2532.
9. Lee, M.K., et al. 2019. Protective effect of *Pyropia yezoensis* peptide on dexamethasone-induced myotube atrophy in C2C12 myotubes. Mar. Drugs 17 pii: E284.

PROTOCOLS

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