

p-Rsk (Ser 376): sc-12883

BACKGROUND

The 90 kDa family of ribosomal S6 kinases (Rsks), designated Rsk-1 (MAPKAP kinase-1), Rsk-2 and Rsk-3, are intracellular Serine/Threonine kinases that are important signaling intermediates in response to a broad range of ligand activated receptor tyrosine kinases. A unique feature common to the members of the Rsk family is that each possesses two non-identical complete kinase catalytic domains. An additional Rsk protein, Rsk-4, shows a high level of homology to the three previously isolated members of the human Rsk family. Rsk-4 is most abundantly expressed in brain and kidney and plays a role in normal neuronal development. The 70 kDa family of ribosomal S6 kinases includes p70 S6 kinase and p70 S6 kinase β , which are thought to have similar regulatory functions. MSK1 (also designated RLPK) is a novel Rsk-related protein, which, like the p90 Rsk family members, contains two non-identical complete kinase catalytic domains.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: RPS6KA2 (human) mapping to 6q27; Rps6ka2 (mouse) mapping to 17 F4.

SOURCE

p-Rsk (Ser 376) is available as either goat (sc-12883) or rabbit (sc-12883-R) polyclonal affinity purified antibody raised against a short amino acid sequence containing phosphorylated Ser 376 of Rsk-3 of human origin.

STORAGE

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

PRODUCT

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

Blocking peptide available for competition studies, sc-12883 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

p-Rsk (Ser 376) is recommended for detection of Ser 376 phosphorylated Rsk-3 and correspondingly phosphorylated Rsk-1 and Rsk-2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1–2 μ g per 100–500 μ g 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).

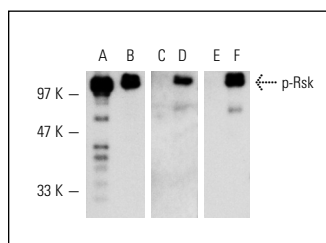
p-Rsk (Ser 376) is also recommended for detection of correspondingly phosphorylated Ser on Rsk-3, Rsk-1 and Rsk-2 in additional species, including equine, canine, bovine, porcine and avian.

Molecular Weight of p-Rsk: 90 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto B Blocking Reagent: sc-2335 (use 50 mM NaF, sc-24988, as diluent), Western Blotting Luminol Reagent: sc-2048 and Lambda Phosphatase: sc-200312A. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



Western blot analysis of lambda protein phosphatase (sc-200312A) treated (A, C, E) and untreated (B, D, F) active human recombinant Rsk. Antibodies tested include: Rsk-1 (C-21): sc-231 (A, B), p-Rsk (Ser 376): sc-12883 (C, D) and p-Rsk (Ser 376)-R: sc-12883-R (E, F).

RESEARCH USE

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