

# p-Rsk (Ser 380): sc-11756

## BACKGROUND

The 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 family of ribosomal S6 kinases includes p70 S6 kinase and p70 S6 kinase  $\beta$ , 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.

## SOURCE

p-Rsk (Ser 380) is available as either goat (sc-11756) or rabbit (sc-11756-R) polyclonal affinity purified antibody raised against a short amino acid sequence containing Ser 380 phosphorylated Rsk-1 of human origin.

## PRODUCT

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

Blocking peptide available for competition studies, sc-11756 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## 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.

## APPLICATIONS

p-Rsk (Ser 380) is recommended for detection of Ser 380 phosphorylated Rsk of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ 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 380) is also recommended for detection of correspondingly phosphorylated Rsk in additional species, including equine, canine, bovine, porcine and avian.

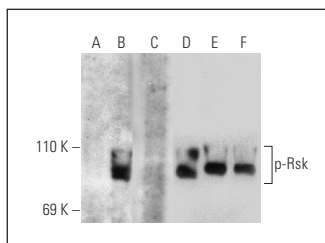
Molecular Weight of p-Rsk: 90 kDa.

Positive Controls: HeLa + serum-starved + PMA cell lysate: sc-24695 or HeLa + PMA cell lysate: sc-2258.

## 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 A Blocking Reagent: sc-2333, 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 Rsk phosphorylation in untreated (A,D), serum-starved, PMA-treated (B,E), serum-starved, PMA and lambda protein phosphatase (sc-200312A) treated (C,F) HeLa whole cell lysates. Antibodies tested include p-Rsk (Ser 380)-R: sc-11756-R (A,B,C) and Rsk-1 (C-21): sc-231 (D,E,F).

## SELECT PRODUCT CITATIONS

- Wang, Y., et al. 2004. Entire mitogen activated protein kinase (MAPK) pathway is present in preimplantation mouse embryos. *Dev. Dyn.* 231: 72-87.
- Konstantopoulos, N., et al. 2007. A purine analog kinase inhibitor, calcium/calmodulin-dependent protein kinase II inhibitor 59, reveals a role for calcium/calmodulin-dependent protein kinase II in Insulin-stimulated glucose transport. *Endocrinology* 148: 374-385.
- Jozwiak, J., et al. 2007. Brain tumor formation in tuberous sclerosis depends on Erk activation. *Neuromolecular Med.* 9: 117-127.
- Peng, C., et al. 2011. Phosphorylation of caspase-8 (Thr-263) by ribosomal S6 kinase 2 (RSK2) mediates caspase-8 ubiquitination and stability. *J. Biol. Chem.* 286: 6946-6954.



Try **p-Rsk (C-5): sc-377526**, our highly recommended monoclonal alternative to p-Rsk (Ser 380).