

p-Rsk (Ser 227): sc-12445

BACKGROUND

The family of ribosomal S6 kinases (Rsk), 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 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

- Moller, D.E., et al. 1994. Human Rsk isoforms: cloning and characterization of tissue-specific expression. *Amer. J. Physiol.* 266: C351-C359.
- Zhao, Y., et al. 1995. Rsk-3 encodes a novel pp90rsk isoform with a unique N-terminal sequence: growth factor-stimulated kinase function and nuclear translocation. *Mol. Cell. Biol.* 15: 4353-4363.

SOURCE

p-Rsk (Ser 227) is available as either goat (sc-12445) or rabbit (sc-12445-R) polyclonal affinity purified antibody raised against a short amino acid sequence containing Ser 227 phosphorylated Rsk-2 of human origin.

PRODUCT

Each vial contains either 100 μ g (sc-12445) or 200 μ g (sc-12445-R) IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-12445 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

p-Rsk (Ser 227) is recommended for detection of Ser 227 phosphorylated Rsk family proteins 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), 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).

p-Rsk (Ser 227) is also recommended for detection of correspondingly phosphorylated Rsk family proteins in additional species, including equine, canine, bovine, porcine and avian.

Molecular Weight of p-Rsk: 90 kDa.

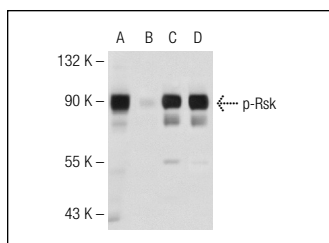
STORAGE

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

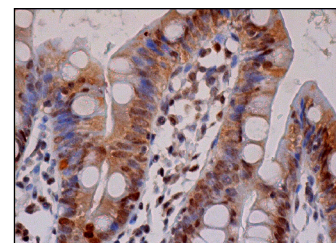
RESEARCH USE

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

DATA



Western blot analysis of Rsk phosphorylation in untreated (A, C) and lambda protein phosphatase (sc-200312A) treated (B, D) HeLa whole cell lysates. Antibodies tested include p-Rsk (Ser 227)-R: sc-12445-R (A, B) and Rsk-1 (C-21): sc-231 (C, D).



p-Rsk Antibody (Ser 227): sc-12445-R. Immunoperoxidase staining of formalin fixed, paraffin-embedded human small intestine tissue showing nuclear and cytoplasmic staining of glandular cells.

SELECT PRODUCT CITATIONS

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- Collins, B.J., et al. 2005. *In vivo* role of the phosphate groove of PDK1 defined by knockin mutation. *J. Cell Sci.* 118: 5023-5034.
- 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.
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