

Rsk-2 (C-19): sc-1430

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.

CHROMOSOMAL LOCATION

Genetic locus: RPS6KA3 (human) mapping to Xp22.12; Rps6ka3 (mouse) mapping to X F4.

SOURCE

Rsk-2 (C-19) is available as either goat (sc-1430) or rabbit (sc-1430-R) affinity purified polyclonal antibody raised against a peptide mapping at the C-terminus of Rsk-2 of human origin.

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-1430 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Rsk-2 (C-19) is recommended for detection of 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), 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).

Rsk-2 (C-19) is also recommended for detection of Rsk-2 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for Rsk-2 siRNA (h): sc-36441, Rsk-2 siRNA (m): sc-36442, Rsk-2 shRNA Plasmid (h): sc-36441-SH, Rsk-2 shRNA Plasmid (m): sc-36442-SH, Rsk-2 shRNA (h) Lentiviral Particles: sc-36441-V and Rsk-2 shRNA (m) Lentiviral Particles: sc-36442-V.

Molecular Weight of Rsk-2: 80 kDa.

Positive Controls: NIH/3T3 whole cell lysate: sc-2210.

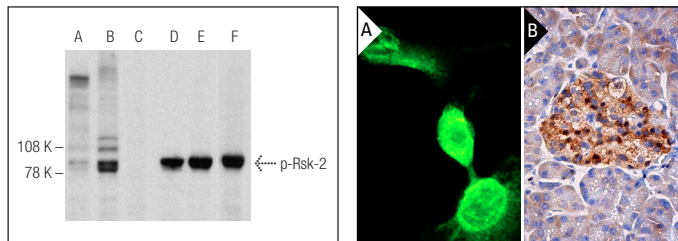
RESEARCH USE

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

STORAGE

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

DATA



Western blot analysis of Rsk-2 phosphorylation in untreated (A,D), UV treated (B,E) and UV and lambda protein phosphatase (sc-200312A) treated (C,F) NIH/3T3 whole cell lysates. Antibodies tested include p-Rsk-2 (F-7): sc-374664 (A,B,C) and Rsk-2 (C-19): sc-1430 (D,E,F).

Rsk-2 (C-19): sc-1430. Immunofluorescence staining of methanol-fixed NIH/3T3 cells showing nuclear localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human pancreas tissue showing nuclear and cytoplasmic staining of Islets of Langerhans (B).

SELECT PRODUCT CITATIONS

- Trivier, E., et al. 1996. Mutations in the kinase Rsk-2 associated with Coffin-Lowry syndrome. *Nature* 384: 567-570.
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- Yang, S., et al. 2014. Phosphorylation of KIBRA by the extracellular signal-regulated kinase (ERK)-ribosomal S6 kinase (RSK) cascade modulates cell proliferation and migration. *Cell. Signal.* 26: 343-351.
- Zhang, L., et al. 2015. The hippo pathway effector YAP regulates motility, invasion, and castration-resistant growth of prostate cancer cells. *Mol. Cell. Biol.* 35: 1350-1362.
- Mohamed, I.A., et al. 2015. Na⁺/H⁺ exchanger isoform 1-induced osteopontin expression facilitates cardiomyocyte hypertrophy. *PLoS ONE* 10: e0123318.



Try **Rsk-2 (E-1): sc-9986**, our highly recommended monoclonal alternative to Rsk-2 (C-19). Also, for AC, HRP, FITC, PE, Alexa Fluor[®] 488 and Alexa Fluor[®] 647 conjugates, see **Rsk-2 (E-1): sc-9986**.