

# Rsk-3 (3C4C8): sc-517283



The Power to Question

## BACKGROUND

The family of ribosomal S6 kinases (Rsk), designated Rsk-1 (or 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.

## REFERENCES

- Alcorta, D.A., et al. 1989. Sequence and expression of chicken and mouse Rsk: homologs of *Xenopus laevis* ribosomal S6 kinase. *Mol. Cell. Biol.* 9: 3850-3859.
- Sweet, L.J., et al. 1990. Identification of mitogen-responsive ribosomal protein S6 kinase pp90rsk, a homolog of *Xenopus* S6 kinase II, in chicken embryo fibroblasts. *Mol. Cell. Biol.* 10: 2413-2417.
- Kozma, S.C., et al. 1990. Cloning of the mitogen-activated S6 kinase from rat liver reveals an enzyme of the second messenger subfamily. *Proc. Natl. Acad. Sci. USA* 87: 7365-7369.

## CHROMOSOMAL LOCATION

Genetic locus: RPS6KA2 (human) mapping to 6q27; Rps6ka2 (mouse) mapping to 17 A1.

## SOURCE

Rsk-3 (3C4C8) is a mouse monoclonal antibody raised against a recombinant protein corresponding to amino acids 415-734 of Rsk-3 of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Rsk-3 (3C4C8) is available conjugated to agarose (sc-517283 AC), 500  $\mu$ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-517283 HRP), 200  $\mu$ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-517283 PE), fluorescein (sc-517283 FITC), Alexa Fluor® 488 (sc-517283 AF488), Alexa Fluor® 546 (sc-517283 AF546), Alexa Fluor® 594 (sc-517283 AF594) or Alexa Fluor® 647 (sc-517283 AF647), 200  $\mu$ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-517283 AF680) or Alexa Fluor® 790 (sc-517283 AF790), 200  $\mu$ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

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## STORAGE

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

## APPLICATIONS

Rsk-3 (3C4C8) is recommended for detection of Rsk-3 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500), flow cytometry (1  $\mu$ g per 1 x 10<sup>6</sup> cells) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Rsk-3 siRNA (h): sc-36443, Rsk-3 siRNA (m): sc-36444, Rsk-3 shRNA Plasmid (h): sc-36443-SH, Rsk-3 shRNA Plasmid (m): sc-36444-SH, Rsk-3 shRNA (h) Lentiviral Particles: sc-36443-V and Rsk-3 shRNA (m) Lentiviral Particles: sc-36444-V.

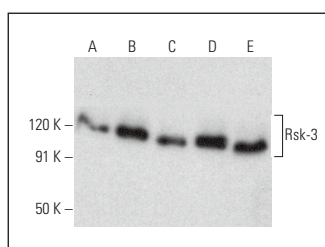
Molecular Weight of Rsk-3: 90 kDa.

Positive Controls: A-431 whole cell lysate: sc-2201, HeLa whole cell lysate: sc-2200 or MCF7 whole cell lysate: sc-2206.

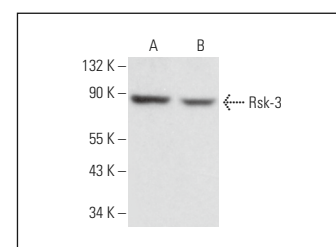
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG $\kappa$  BP-HRP: sc-516102 or m-IgG $\kappa$  BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgG $\kappa$  BP-FITC: sc-516140 or m-IgG $\kappa$  BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgG $\kappa$  BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

## DATA



Rsk-3 (3C4C8): sc-517283. Western blot analysis of Rsk-3 expression in HeLa (A), A-431 (B), MCF7 (C), Hep G2 (D) and Jurkat (E) whole cell lysates.



Rsk-3 (3C4C8): sc-517283. Western blot analysis of Rsk-3 expression in MCF7 (A) and HUV-EC-C (B) whole cell lysates.

## SELECT PRODUCT CITATIONS

- Park, Y.H., et al. 2020. Ancient familial Mediterranean fever mutations in human pyrin and resistance to *Yersinia pestis*. *Nat. Immunol.* 21: 857-867.

## RESEARCH USE

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