

MSK1 (F-4): sc-518173

BACKGROUND

The family of ribosomal S6 kinases (Rsk), designated Rsk-1, Rsk-2 and Rsk-3, have been implicated as important signaling intermediates in response to a broad range of ligand-activated receptor tyrosine kinases. A unique feature common to the three members of the Rsk family is that each possesses two non-identical complete kinase catalytic domains. A related S6 kinase, p70 S6 kinase, functions to phosphorylate the S6 protein on ribosomal 40S subunits. p70 S6 kinase b shares high sequence homology with p70 S6 kinase, except in the carboxy terminus where it contains a proline-rich domain that may be involved in SH3 domain containing protein interactions. MSK1 (also designated RLPK) is related to Rsk and p70 S6 kinase family members and is thought to be structurally similar to Rsk family members, but it may be regulated by distinct mechanisms.

REFERENCES

1. 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.
2. 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.
3. 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.
4. Moller, D.E., et al. 1994. Human rsk isoforms: cloning and characterization of tissue-specific expression. *Am. J. Physiol.* 266: 351-359.
5. Zhao, Y., et al. 1995. RSK3 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.

CHROMOSOMAL LOCATION

Genetic locus: RPS6KA5 (human) mapping to 14q32.11.

SOURCE

MSK1 (F-4) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 634-656 of MSK1 of human origin.

PRODUCT

Each vial contains 200 µg IgM kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

MSK1 (F-4) is available conjugated to agarose (sc-518173 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-518173 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-518173 PE), fluorescein (sc-518173 FITC), Alexa Fluor® 488 (sc-518173 AF488), Alexa Fluor® 546 (sc-518173 AF546), Alexa Fluor® 594 (sc-518173 AF594) or Alexa Fluor® 647 (sc-518173 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-518173 AF680) or Alexa Fluor® 790 (sc-518173 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

MSK1 (F-4) is recommended for detection of MSK1 of human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg 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).

Suitable for use as control antibody for MSK1 siRNA (h): sc-35977, MSK1 shRNA Plasmid (h): sc-35977-SH and MSK1 shRNA (h) Lentiviral Particles: sc-35977-V.

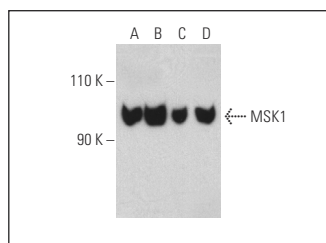
Molecular Weight of MSK1: 90 kDa.

Positive Controls: THP-1 cell lysate: sc-2238, HeLa whole cell lysate: sc-2200 or HL-60 whole cell lysate: sc-2209.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ 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-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



MSK1 (F-4): sc-518173. Western blot analysis of MSK1 expression in U-87 MG (A), HeLa (B), HL-60 (C) and THP-1 (D) whole cell lysates. Detection reagent used: m-IgGκ BP-HRP: sc-516102.

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.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.