



**Mouse (monoclonal)
Anti-RSK1
Unconjugated**

PRODUCT ANALYSIS SHEET

Catalog Number:	AHO1472
Lot Number:	See product label
Quantity/Volume:	100 µg/0.2 mL
Clone Number:	257R21
Isotype:	IgG1 κ (mouse)
Form of Antibody:	Purified immunoglobulin in phosphate buffered saline, pH 7.2, with 1% bovine serum albumin.
Preservation:	0.1% sodium azide (Caution: sodium azide is a poisonous and hazardous substance. Handle with care and dispose of properly.)
Purification:	Purified from ascites by affinity chromatography.
Immunogen:	Recombinant fragment of human RSK1 expressed in <i>E. coli</i> .
Specificity:	<p>This antibody recognizes a protein of 82 kDa identified as Ribosomal S6 kinase 1 (RSK1). RSK1 (also called MAPK Activated Protein Kinase-1a; MAPKAP-K1a) is a member of the broadly expressed p90 Ribosomal S6 Kinase (RSK) family of serine/threonine kinases that also includes RSK2 (MAPKAP-K1b), RSK3 (MAPKAP-K1c), and RSK4. RSK proteins are substrates for, and downstream transducers of, MAPK signaling proteins, primarily ERK1&2. RSK proteins possess two separate kinase domains, the C-terminal kinase domain and the N-terminal kinase domain, separated by a linker region containing a hydrophobic motif. Activation of RSK is a multi-step process involving phosphorylation of multiple residues within the three domains, changes in RSK protein localization, and modulation of complex formation with ERK1&2 and/or 14-3-3β proteins. RSK proteins are activated by many stimuli including growth factors, phorbol esters, cAMP, heat shock, and irradiation.</p> <p>This antibody does not react with RSK2, RSK3 and RSK4.</p>
Species Reactivity:	Human, mouse and rat. Other species not tested.
Applications:	This antibody is suitable for use in Western blotting.
Suggested Working Dilutions:	For Western blotting, the recommended concentration is 1 µg/mL. The optimal antibody concentration should be determined for each specific application.
Recommended Positive Control:	Human Jurkat cells, mouse L929 cells and rat PC12 cells.
Storage:	Store at 2-8°C. For long term storage, aliquot into small volumes and store at -20°C. Avoid repeated freeze-thaw cycles to prevent denaturing the antibody.

This product is for research use only. Not for use in diagnostic procedures.

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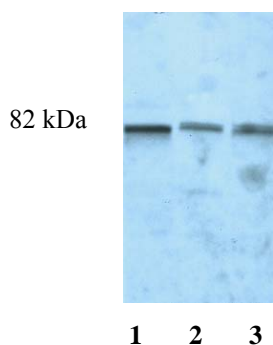
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References:

- Cavet, M.E., et al. (2003) 14-3-3 β is a p90 Ribosomal S6 Kinase (RSK) isoform 1-binding protein that negatively regulates RSK kinase activity. *J. Biol. Chem.* 278(20):18376-18383.
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- Zhang, Y., et al. (2001) UVA induces Ser³⁸¹ phosphorylation of p90^{RSK}/MAPKAP-K1 via ERK and JNK pathways. *J. Biol. Chem.* 276(18):14572-14580.
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- Smith, J.A., et al. (1999) Identification of an Extracellular Signal-Regulated Kinase (ERK) docking site in Ribosomal S6 Kinase, as sequence critical for activation by ERK *in vivo*. *J. Biol. Chem.* 274(5):2893-2898.

Related Products:

RSK1 [pS ³⁶³] Phosphorylation Site Specific Antibody	Cat. #44-926
RSK1 [pS ³⁸⁰] Phosphorylation Site Specific Antibody	Cat. #44-928
RSK1 [pS ²²¹] Phosphorylation Site Specific Antibody	Cat. # 44-924G
ERK1&2 [pTpY ^{185/187}] Phosphorylation Site Specific Antibody	Cat. # 44-680
JNK1&2 [pTpY ^{183/185}] Phosphorylation Site Specific Antibody	Cat. # 44-682
p70S6K [pT ²²⁹] Phosphorylation Site Specific Antibody	Cat. # 44-918
I κ B α [pS ³²] Phosphorylation Site Specific Antibody	Cat. # 44-725G
RSK1 rabbit polyclonal antibody	Cat. # 38-6700

**Western Blot Analysis**

Proteins from cell extracts of human Jurkat cells (lane 1), mouse L929 cells (lane 2), and rat PC12 cells (lane 3) were resolved by SDS-PAGE and transferred to PVDF. The membranes were incubated with this RSK1 monoclonal antibody (clone 257R21) at a concentration of 1 μ g/mL for two hours at room temperature. After washing, the membranes were incubated with a goat F(ab')₂ anti-mouse IgG alkaline phosphatase conjugated antibody (Cat. # AMI4405) at a 1:2000 dilution. Bands were detected with CDP-substrate using the WesternStarTM method (Tropix) and Kodak BioMax film.

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