

p70S6K [pT389] ABfinity™ Recombinant Rabbit Monoclonal Antibody – Purified

Publication Part no. MAN0005255

Rev. Date: 17 October 2011

Catalog Number: 701064

Store at 2–8°C

Clonality: Monoclonal
Concentration: 0.5 mg/mL
Quantity: 100 µg
Volume: 200 µL

Host/Class: Rabbit IgG
Reactivity: Human p70S6K
Predicted Reactivity: Human

Product Description

p70 Ribosomal Protein S6 Kinase (p70S6K) is a 70 kDa member of the ribosomal S6 kinase (RSK) family of serine/threonine kinases. It is predominantly localized in the cytoplasm, and is essential in growth factors regulated cell proliferation, pathways involving cell motility, such as metastases, the immune response, and tissue repair. p70S6K acts downstream of phosphoinositide (PI) 3-kinase, and its main physiological target is the S6 ribosomal protein, which is involved in upregulation of protein synthesis. Activation of p70S6K is linked to the phosphorylation of several serine and threonine residues including T²²⁹, T³⁸⁹, T⁴²¹, S⁴¹¹, and S⁴²⁴. mTOR directly phosphorylate threonine 389 *in vitro*, which is the major rapamycin-sensitive site.

Product Specifications

Immunogen: Phosphopeptide corresponding to amino acids 384–394 of human p70 ribosomal protein S6 kinase
Alternate Names: PS6K, CBP
Apparent MW: ~70 kDa
Gene ID: 6198
Protein Accession No.: P62753
Sequence Identity: Human
Clone/PAD: B2H9L2
Lot: See product label

Product Applications

Application	Species	Test Material	Concentration
Western blotting	Human	HeLa cells, and U87-MG cells	0.5–2 µg/mL
Immunocytochemistry	Human	HeLa cells	1–3 µg/mL
Indirect ELISA	Human	Phosphopeptide	1.5 × 10 ⁻⁴ to 3 µg/mL

Storage and Handling

Store the antibody at 2–8°C for up to 1 month, or –20°C for long storage. Avoid repeated freezing and thawing.

Stability

Expires one year from date of receipt when stored as instructed.

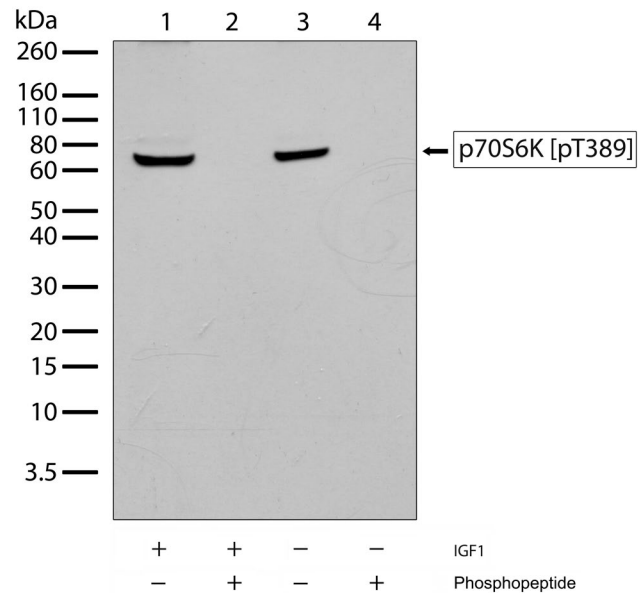


Figure 1 Western blot analysis of p70S6K [pT389] ABfinity™ Recombinant Rabbit Monoclonal Antibody (Cat. no. 701064). Western blot analysis was performed on whole cell extracts of serum starved HeLa cells treated with 150 ng/mL of IGF1 for 15 minutes (lanes 1 and 2), and U87-MG cells (lanes 3 and 4). A band corresponding to phosphorylated p70S6K at ~70 kDa was detected using p70S6K [pT389] ABfinity™ Recombinant Rabbit Monoclonal Antibody at a concentration of 1 µg/mL (lane 1). To confirm specificity, competition was performed with the phosphopeptide (lanes 2 and 4). The blot was developed using chemiluminescence (ECL) method.

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Storage Buffer

Phosphate buffered saline (PBS) with 0.09% sodium azide.

Safety Data Sheets (SDS)

Safety Data Sheets (SDSs) are available at www.invitrogen.com/sds.

Certificate of Analysis

The Certificate of Analysis provides detailed quality control and product qualification information for each product. Certificates of Analysis are available on our website. Go to www.invitrogen.com/support and search for the Certificate of Analysis by product lot number, which is printed on the box.

Related Products

Product Name	Quantity	Catalog No.
iBlot® Dry Blotting System	1 unit	IB1001
WesternBreeze™ Chromogenic Kit Anti-Rabbit	1 kit	WB7105
WesternBreeze™ Chemiluminescent Kit, Anti-Rabbit	1 kit	WB7106
Goat anti-mouse (H+L), HRP conj.	1 mg	G21040
Goat anti-rabbit (H+L), HRP conj.	1 mg	G21234
Goat anti-mouse (H+L), AP conj.	1 mg	G21060
Goat anti-rabbit (H+L), AP conj.	1 mg	G21079
Nitrocellulose, 0.2 µm	20/pack	LC2000

Explanation of symbols

Symbol	Description	Symbol	Description
	Catalogue Number		Batch code
	Research Use Only		In vitro diagnostic medical device
	Use by		Temperature limitation
	Manufacturer		European Community authorised representative
	Without, does not contain		With, contains
	Protect from light		Consult accompanying documents
	Directs the user to consult instructions for use (IFU), accompanying the product.		

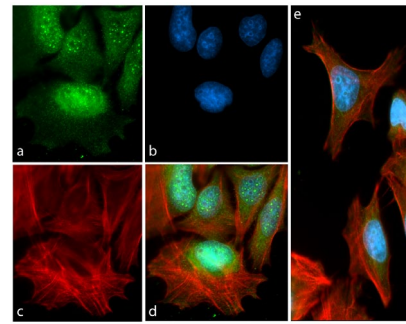


Figure 2 Immunocytochemistry analysis of p70S6K [pT389] ABfinity™ Recombinant Rabbit Monoclonal Antibody (Cat. no. 701064). Immunocytochemistry analysis of serum starved HeLa cells treated with insulin (100 ng/mL for 15 minutes), and stained with p70S6K [pT389] ABfinity™ Recombinant Rabbit Monoclonal Antibody, using **a**: Alexa Fluor® 488 goat anti-rabbit as a secondary antibody (green). **b**: DAPI was used to stain the nucleus (blue), and **c**: Alexa Fluor® 594 phalloidin was used to stain actin (red). **d**: Composite image of cells showing cytoplasmic and nuclear localization of phosphorylated p70S6K. **e**: Composite image of cells showing competition with the phospho p70S6K [pT389] peptide.

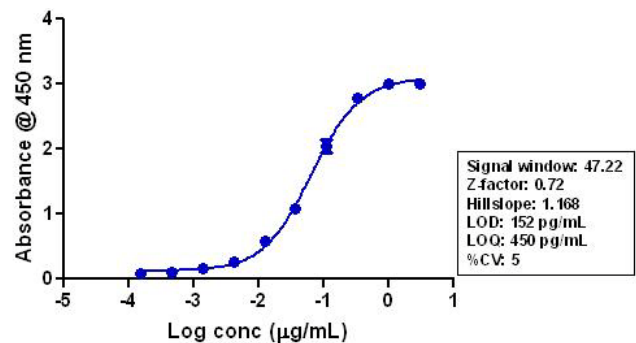


Figure 3 Indirect ELISA of p70S6K [pT389] ABfinity™ Recombinant Rabbit Monoclonal Antibody (Cat. no. 701064). Indirect ELISA was performed using various dilutions of p70S6K [pT389] ABfinity™ Recombinant Rabbit Monoclonal Antibody (Cat. no. 701064) to detect phospho p70S6K [pT389] peptide coated onto the plate. A non-linear regression analysis was performed (4 PL) and LOD and LOQ for the antibody was determined.

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