

DESCRIPTION

Species Reactivity	Human/Mouse/Rat
Specificity	Detects human, mouse, and rat RSK1, 2, 3, and 4 in Western blots.
Source	Monoclonal Mouse IgG _{2B} Clone # 792921
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	synthetic peptide corresponding to Lys171-Asp193 of human RSK2 Accession # P51821
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	Recommended Concentration	Sample
Western Blot	1 µg/mL	See Below
Simple Western	20 µg/mL	See Below


DATA

Western Blot

Detection of Human, Mouse, and Rat RSK by Western Blot. Western blot shows lysates of HepG2 human hepatocellular carcinoma cell line, NIH-3T3 mouse embryonic fibroblast cell line, and L6 rat myoblast cell line. PVDF membrane was probed with 1 µg/mL of Mouse Anti-Human/Mouse/Rat RSK Pan Specific Monoclonal Antibody (Catalog # MAB2056) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF018). A specific band was detected for RSK at approximately 95 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

Simple Western

Detection of Human RSK by Simple Western™. Simple Western lane view shows lysates of HepG2 human hepatocellular carcinoma cell line and HeLa human cervical epithelial carcinoma cell line, loaded at 0.2 mg/mL. A specific band was detected for RSK at approximately 86 kDa (as indicated) using 20 µg/mL of Mouse Anti-Human/Mouse/Rat RSK Pan Specific Monoclonal Antibody (Catalog # MAB2056). This experiment was conducted under reducing conditions and using the 12-230 kDa separation system.



PREPARATION AND STORAGE

Reconstitution	Sterile PBS to a final concentration of 0.5 mg/mL.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

The 90 kDa ribosomal protein S6 kinases (RSK1-4) are a family of broadly expressed Ser/Thr kinases activated in response to mitogenic stimuli, including growth factors and tumor-promoting phorbol esters. RSKs are directly phosphorylated by ERK1 and ERK2, leading to RSK autophosphorylation and activation. Active RSKs appear to play a major role in transcriptional regulation by translocating to the nucleus and phosphorylating c-Fos and CREB. Within the range used as immunogen, human RSK2 shares 96%, 100%, and 91% amino acid sequence identity with RSK1, RSK3, RSK4, respectively.