

#3556 Store at -20C

## Phospho-RSK2 (Ser227) (D53A11) Rabbit mAb



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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
WB	H M R Mk	Endogenous	90	Rabbit IgG	#P51812, #Q15418	6197, 6195

<b>Product Usage Information</b>	<b>Application</b> Western Blotting	<b>Dilution</b> 1:1000
<b>Storage</b>	Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.	
<b>Specificity / Sensitivity</b>	Phospho-RSK2 (Ser227) (D53A11) Rabbit mAb detects endogenous levels of RSK2 only when phosphorylated at Ser227. It shows cross-reactivity with RSK1 when phosphorylated at the homologous serine residues.	
<b>Source / Purification</b>	Monoclonal antibody is produced by immunizing animals with a synthetic phosphopeptide corresponding to residues surrounding Ser227 of human RSK2.	
<b>Background</b>	<p>The 90 kDa ribosomal S6 kinases (RSK1-4) are a family of widely expressed Ser/Thr kinases characterized by two nonidentical, functional kinase domains (1) and a carboxy-terminal docking site for extracellular signal-regulated kinases (ERKs) (2). Several sites both within and outside of the RSK kinase domain, including Ser380, Thr359, Ser363, and Thr573, are important for kinase activation (3). RSK1-3 are activated via coordinated phosphorylation by MAPKs, autophosphorylation, and phosphoinositide-3-OH kinase (PI3K) in response to many growth factors, polypeptide hormones, and neurotransmitters (3).</p> <p>PDK1 phosphorylates Ser227 in the activation loop of the amino-terminal kinase domain of RSK2, leading to substantial activation of the kinase <i>in vitro</i> and <i>in vivo</i>. The constitutively active PDK1 cooperates with ERK in the activation of RSK following the exposure of cells to growth factors or UV-light (4, 5).</p>	
<b>Background References</b>	<ol style="list-style-type: none"> <li>1. Fisher, T.L. and Blenis, J. (1996) <i>Mol Cell Biol</i> 16, 1212-9.</li> <li>2. Smith, J.A. et al. (1999) <i>J Biol Chem</i> 274, 2893-8.</li> <li>3. Dalby, K.N. et al. (1998) <i>J Biol Chem</i> 273, 1496-505.</li> <li>4. Jensen, C.J. et al. (1999) <i>J Biol Chem</i> 274, 27168-76.</li> <li>5. Mérianne, K. et al. (2000) <i>Oncogene</i> 19, 4221-9.</li> </ol>	

<b>Species Reactivity</b>	Species reactivity is determined by testing in at least one approved application (e.g., western blot).
<b>Western Blot Buffer</b>	IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.
<b>Applications Key</b>	<b>WB:</b> Western Blotting
<b>Cross-Reactivity Key</b>	<b>H:</b> human <b>M:</b> mouse <b>R:</b> rat <b>Hm:</b> hamster <b>Mk:</b> monkey <b>Vir:</b> virus <b>Mi:</b> mink <b>C:</b> chicken <b>Dm:</b> D. melanogaster <b>X:</b> Xenopus <b>Z:</b> zebrafish <b>B:</b> bovine <b>Dg:</b> dog <b>Pg:</b> pig <b>Sc:</b> S. cerevisiae <b>Ce:</b> C. elegans <b>Hr:</b> horse <b>GP:</b> Guinea Pig <b>Rab:</b> rabbit <b>All:</b> all species expected
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