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## Phospho-SEK1/MKK4 (Thr261) Antibody



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**For Research Use Only. Not for Use in Diagnostic Procedures.**

<b>Applications:</b> WB	<b>Reactivity:</b> H M R	<b>Sensitivity:</b> Endogenous	<b>MW (kDa):</b> 46	<b>Source:</b> Rabbit	<b>UniProt ID:</b> #P45985	<b>Entrez-Gene Id:</b> 6416
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<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 and 50% glycerol. Store at –20°C. Do not aliquot the antibody.	
<b>Specificity / Sensitivity</b>	Phospho-SEK1/MKK4 (Thr261) Antibody detects endogenous levels of SEK1/MKK4 protein only when phosphorylated at threonine 261. This antibody does not cross-react with the corresponding phosphorylated residues of MEK1, MEK2 or MKK3.	
<b>Source / Purification</b>	Polyclonal antibodies are produced by immunizing animals with a synthetic phosphopeptide corresponding to residues around Thr261 of human SEK1. Antibodies are purified by protein A and peptide affinity chromatography.	
<b>Background</b>	SAPK/Erk kinase (SEK1), also known as MKK4 or Jun kinase kinase (JNKK), activates the MAP kinase homologues SAPK and JNK in response to various cellular stresses and inflammatory cytokines (1-3). Activation of SEK1 occurs through MEKK phosphorylation of serine and threonine residues at positions 257 and 261, respectively. Like MEK, SEK is a dual-specificity protein kinase that phosphorylates SAPK/JNK at a conserved T*PY* site in its activation loop (4). Phosphorylation by Akt at Ser80 inhibits SEK1 and suppresses stress-activated signal transduction (5).	
<b>Background References</b>	<ol style="list-style-type: none"> <li>1. Davis, R.J. (1994) <i>Trends Biochem. Sci.</i> 19, 470-473.</li> <li>2. Sanchez, I. et al. (1994) <i>Nature</i> 372, 794-798.</li> <li>3. Yan, M. et al. (1994) <i>Nature</i> 372, 798-800.</li> <li>4. Kyriakis, J.M. et al. (1994) <i>Nature</i> 369, 156-160.</li> <li>5. Park, H. et al. (2002) <i>J. Biol. Chem.</i> 277, 2573-2578.</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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