

**p38 MAPK (D13E1) XP<sup>®</sup> Rabbit mAb  
(Biotinylated)**

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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W	H M R Hm Mk B Pg	Endogenous	40	Rabbit IgG	#Q16539, #P53778, #Q15759	1432, 6300, 5600

Product Usage Information	Application	Dilution
<b>Storage</b>	Western Blotting	1:1000
<b>Specificity/Sensitivity</b>	Supplied in 140 mM NaCl, 3 mM KCl, 10 mM sodium phosphate (pH 7.4) dibasic, 2 mM potassium phosphate monobasic, 2 mg/mL BSA, and 50% glycerol. Store at -20°C. <i>Do not aliquot the antibody.</i>	
<b>Species predicted to react based on 100% sequence homology</b>	p38 MAPK (D13E1) XP <sup>®</sup> Rabbit mAb (Biotinylated) recognizes endogenous levels of total p38α, β, or γ MAPK protein. This antibody does not recognize p38δ, SAPK/JNK, or p44/42 MAPK proteins.	
<b>Source / Purification</b>	Chicken	
<b>Description</b>	Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues near the carboxy terminus of human p38 MAPK protein.	
<b>Background</b>	This Cell Signaling Technology antibody is conjugated to biotin under optimal conditions. The biotinylated antibody is expected to exhibit the same species cross-reactivity as the unconjugated p38 MAPK (D13E1) XP <sup>®</sup> Rabbit mAb #8690.	
<b>Background References</b>	p38 MAP kinase (MAPK), also called RK (1) or CSBP (2), is the mammalian orthologue of the yeast HOG kinase that participates in a signaling cascade controlling cellular responses to cytokines and stress (1-4). Four isoforms of p38 MAPK, p38α, β, γ (also known as Erk6 or SAPK3), and δ (also known as SAPK4) have been identified. Similar to the SAPK/JNK pathway, p38 MAPK is activated by a variety of cellular stresses, including osmotic shock, inflammatory cytokines, lipopolysaccharide (LPS), UV light, and growth factors (1-5). MKK3, MKK6, and SEK activate p38 MAPK by phosphorylation at Thr180 and Tyr182. Activated p38 MAPK has been shown to phosphorylate and activate MAPKAP kinase 2 (3) and to phosphorylate the transcription factors ATF-2 (5), Max (6), and MEF2 (5-8). SB203580 (4-(4-fluorophenyl)-2-(4-methylsulfinylphenyl)-5-(4-pyridyl)-imidazole) is a selective inhibitor of p38 MAPK. This compound inhibits the activation of MAPKAPK-2 by p38 MAPK and subsequent phosphorylation of HSP27 (9). SB203580 inhibits p38 MAPK catalytic activity by binding to the ATP-binding pocket, but does not inhibit phosphorylation of p38 MAPK by upstream kinases (10).	
<b>Background References</b>	<ol style="list-style-type: none"> <li>1. Rouse, J. et al. (1994) <i>Cell</i> 78, 1027-37.</li> <li>2. Han, J. et al. (1994) <i>Science</i> 265, 808-11.</li> <li>3. Lee, J.C. et al. (1994) <i>Nature</i> 372, 739-46.</li> <li>4. Freshney, N.W. et al. (1994) <i>Cell</i> 78, 1039-49.</li> <li>5. Raingeaud, J. et al. (1995) <i>J Biol Chem</i> 270, 7420-6.</li> <li>6. Zervos, A.S. et al. (1995) <i>Proc Natl Acad Sci U S A</i> 92, 10531-4.</li> <li>7. Zhao, M. et al. (1999) <i>Mol Cell Biol</i> 19, 21-30.</li> <li>8. Yang, S.H. et al. (1999) <i>Mol Cell Biol</i> 19, 4028-38.</li> <li>9. Cuenda, A. et al. (1995) <i>FEBS Lett</i> 364, 229-33.</li> <li>10. Kumar, S. et al. (1999) <i>Biochem Biophys Res Commun</i> 263, 825-31.</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>W:</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>B:</b> Bovine <b>Pg:</b> Pig

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