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## p38 MAPK Antibody


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| <b>Applications:</b><br>WB, IHC-P, FC-FP | <b>Reactivity:</b><br>H M R Mk GP | <b>Sensitivity:</b><br>Endogenous | <b>MW (kDa):</b><br>40 | <b>Source:</b><br>Rabbit | <b>UniProt ID:</b><br>#Q16539, #P53778,<br>#Q15759 | <b>Entrez-Gene Id:</b><br>1432, 6300, 5600 |
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| <b>Product Usage Information</b>                                   | <b>Application</b><br>Western Blotting<br>Immunohistochemistry (Paraffin)<br>Flow Cytometry (Fixed/Permeabilized)   | <b>Dilution</b><br>1:1000<br>1:150 - 1:600<br>1:200 - 1:800 |
| <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>                                   | p38 MAP Kinase Antibody detects endogenous levels of total p38α, -β or -γ MAPK protein. This antibody does not recognize p38δ, JNK/SAPK or p44/42 MAPK.   |   |
| <b>Species predicted to react based on 100% sequence homology:</b> | Chicken   |   |
| <b>Source / Purification</b>                                       | Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to the sequence of human p38 MAPK. Antibodies are purified by protein A and peptide affinity chromatography.  |   |
| <b>Background</b>  | <p>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 MAPKAP-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).</p> |   |
| <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>   |   |

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| <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. |

**Applications Key****WB:** Western Blotting **IHC-P:** Immunohistochemistry (Paraffin) **FC-FP:** Flow Cytometry (Fixed/Permeabilized)**Cross-Reactivity Key****H:** human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **Mi:** mink **C:** chicken **Dm:** D. melanogaster  
**X:** Xenopus **Z:** zebrafish **B:** bovine **Dg:** dog **Pg:** pig **Sc:** S. cerevisiae **Ce:** C. elegans **Hr:** horse  
**GP:** Guinea Pig **Rab:** rabbit **All:** all species expected**Trademarks and Patents**

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