p38 MAPK Antibody

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

<table>
<thead>
<tr>
<th>Applications:</th>
<th>WB, IHC-P, FC-FP</th>
<th>Reactivity:</th>
<th>H M R Mk GP</th>
<th>Sensitivity:</th>
<th>Endogenous</th>
<th>MW (kDa):</th>
<th>40</th>
<th>Source:</th>
<th>Rabbit</th>
<th>UniProt ID:</th>
<th>#Q16539, #P53778, #Q15759</th>
<th>Entrez-Gene Id:</th>
<th>1432, 6300, 5600</th>
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**Product Usage Information**

<table>
<thead>
<tr>
<th>Application</th>
<th>Dilution</th>
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<tbody>
<tr>
<td>Western Blotting</td>
<td>1:1000</td>
</tr>
<tr>
<td>Immunohistochemistry (Paraffin)</td>
<td>1:150 - 1:600</td>
</tr>
<tr>
<td>Flow Cytometry (Fixed/Permeabilized)</td>
<td>1:200 - 1:800</td>
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</tbody>
</table>

**Storage**

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.

**Specificity / Sensitivity**

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.

**Species predicted to react based on 100% sequence homology:**

Chicken

**Source / Purification**

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.

**Background**

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).

**Background References**


**Species Reactivity**

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

**Western Blot Buffer**

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

X: Xenopus  Z: zebrafish  B: bovine  Pg: pig  Sc: S. cerevisiae  Ce: C. elegans  Hr: horse
GP: Guinea Pig  Rab: rabbit  All: all species expected

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