

Anti-p38 α MAP Kinase (C-terminal)

Cat. # **PM1381**
Host **Mouse Monoclonal IgG1**
Size **100 μ l**

Background:

p38 MAP kinase (MAPK), also called RK, CSBP, and SAPK2a, is the mammalian orthologue of the yeast HOG kinase. This family of kinases participates in signaling cascades that control cellular responses to cytokines and stress. Four isoforms of p38 MAPK ($\alpha, \beta, \gamma, \delta$) have been identified. Similar to the SAPK/JNK pathway, p38 MAPK is activated by a variety of cellular stresses including osmotic shock, inflammatory cytokines, lipopolysaccharides, UV light and growth factors. MKK3 and SEK activate p38 MAPK by dual phosphorylation at threonine 180 and tyrosine 182. Activated p38 MAPK has been shown to phosphorylate and activate MAPKAP kinase 2 and to phosphorylate the transcription factors ATF-2, Max and MEF2.

References:

Han, J. et al. (1994) Science 265, 808-811.
Lee, J. C. et al. (1994) Nature 372, 739-746.
Rouse, J. et al. (1994) Cell 78, 1027-1037.
Freshney, N. W. et al. (1994) Cell 78, 1039-1049.
Raugeaud, J. et al. (1995) J. Biol. Chem. 270, 7420-7426.

Immunogen:

Clone M138 was generated from a recombinant protein corresponding to amino acid residues in the C-terminal region of rat p38 α . This sequence is identical in human and mouse p38 α .

Buffer and Storage:

Mouse monoclonal purified with protein A chromatography is supplied in 100 μ l phosphate-buffered saline, 50% glycerol, 1 mg/ml BSA, and 0.05% sodium azide. Store at -20°C . Do not aliquot. Stable for 1 year.

Applications:

Western blotting 1:1000 dilution[†]
ELISA 1:2000 dilution Immunocytochemistry 1:500

End user should determine optimal dilution for their particular applications and experiments.

[†]Membrane was incubated with diluted antibody in 5% non-fat milk, PBS, 0.04% Tween20 for 1 hour at room temperature.

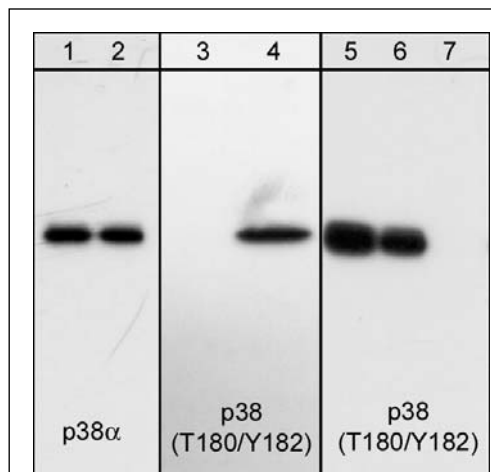
Specificity:

This antibody detects a 42 kDa* protein corresponding to the apparent molecular mass of p38 α on SDS-PAGE immunoblots of human Jurkat, A431, and HeLa cells.

*All molecular weights (MW) are confirmed by comparison to Bio-Rad Rainbow Markers and to western blot mobilities of known proteins with similar MW.

Related Products:

PM1391 p38 (Thr-180/Tyr-182), phospho-specific Mouse Monoclonal
AL9401 A431 Pervanadate Control Lysate AL9501 A431 + Pervanadate Lysate



Western blot analysis of A431 cells serum starved overnight (lanes 1 & 3) or treated with pervanadate (1 mM) for 30 minutes (lanes 2 & 4). The blot was probed with anti-p38 α (lanes 1 & 2) or anti-p38 (T180/Y182) (lanes 3-4). Lanes 5-7 shows a blot of A431 cells treated with pervanadate and probed with anti-p38 (T180/Y182) in the presence of no peptide (lane 5), phospho-ERK1 (T202/Y204) peptide (lane 6) or phospho-p38 (T180/Y182) peptide (lane 7).

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