

Anti-phospho-p38 alpha (Tyr182)

Rabbit Polyclonal Antibody

Catalog # M39-65R

Lot # J1178-26

Cited Applications

WB, IHC

Suggested Dilutions:

WB: 1:500-1:1000 IHC: 1:50-1:100

Ideal working dilutions for each application should be empirically determined by the investigator.

Specificity

Recognizes the p38 alpha protein phosphorylated at tyrosine 182

Cross Reactivity

Human, Mouse and Rat

Host/Isotype/Clone#

Rabbit, IgG

Immunogen

Synthetic phospho-peptide corresponding to amino acid residues surrounding Tyr182

Formulation

PBS (pH 7.4) 150mM NaCl, 0.02% sodium azide and 50% glycerol.

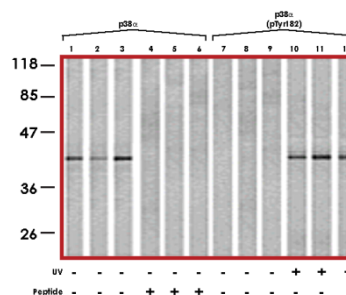
Scientific Background

p38α (a.k.a. SAPK2A) is a member of the p38 MAPK family, which are activated by various environmental stresses and proinflammatory cytokines (1). The activation of p38α requires its phosphorylation by MAP kinase kinases (MKKs) or by autophosphorylation triggered by the interaction of MAP3K7IP1/TAB1 protein (2). The substrates of p38α include the transcriptional regulators ATF2, MEF2C, MAX, the cell cycle regulator CDC25B, and the tumor suppressor p53. Its wide range of targets suggest that p38α has roles in stress related transcription, cell cycle regulation and genotoxic stress response. Like the other MAPKs, p38α is activated by a dual specificity kinase that phosphorylates Thr180 and Tyr182 (3).

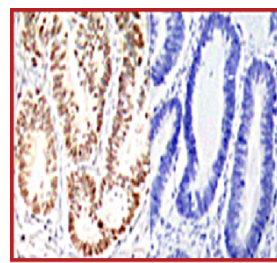
References

1. Han, J. et al: A MAP kinase targeted by endotoxin and hyperosmolarity in mammalian cells. *Science* 265: 808-811, 1994.
2. Ge, B. et al: MAPKK-independent activation of p38-alpha mediated by TAB1-dependent autophosphorylation of p38-alpha. *Science* 295: 1291-1294, 2002.
3. Lin A. et al: Identification of a dual specificity kinase that activates the Jun kinases and p38-Mpk2. *Science* 268:286-290, 1995.

Sample Data



Western blots from NIH-3T3 cells (lanes 1, 4, 7 and 10) and Cos7 cells (lanes 2, 5, 8 and 11) and K562 cells (lanes 3, 6, 9 and 12), treated and untreated with UV (20min) using p38 alpha antibody (lanes 1, 2, 3, 4, 5 and 6) and anti-phospho-p38 alpha (Tyr182) antibody (lanes 7, 8, 9, 10, 11 and 12).



P-Peptide - +

Immunohistochemical analysis of paraffin-embedded human colon carcinoma tissue using anti-phospho-p38 alpha (Tyr182) antibody.

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Purification

Affinity chromatography

Stability

1yr at -20°C from date of shipment

Storage & Shipping

Store product at -20°C. For optimal storage, aliquot antibody into smaller quantities after centrifugation and store at recommended temperature. For optimal performance, avoid repeated handling and multiple freeze/thaw cycles. Product shipped on ice packs.

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