

Product Information



p38 MAPK (Phospho-Thr¹⁸⁰/Tyr¹⁸²) Polyclonal Antibody

Item No. 10009177

Supplied as:	Affinity-purified IgG
Host:	Rabbit
Antigen:	Phosphopeptide corresponding to amino acid residues surrounding phospho-Thr ¹⁸⁰ and phospho-Tyr ¹⁸² of rat p38 MAPK
Cross Reactivity:	(+) Human p38 MAPK
Stability:	≥1 year at -20°C
Application:	The recommended starting dilution for western blot is 1:1,000. Other applications were not attempted and therefore optimal working dilutions should be determined empirically.

The three mitogen-activated protein kinases (MAPKs) are evolutionarily conserved protein kinases that control a vast array of cellular processes. p38 MAPK is one of these kinases and it is activated by both inflammatory cytokines and by stress.^{1,2} The p38 MAPK is thought to be particularly important in diseases like asthma and autoimmunity but it also plays important roles in the stress response of the nervous system.^{3,4} Like the other MAPKs, p38 is activated by a dual specificity kinase that phosphorylates Thr¹⁸⁰ and Tyr¹⁸².⁵ Nonphosphorylated p38 MAPK is a 40 kDa protein.

References

1. Johnson, G.L. and Lapadat, R. Mitogen-activated protein kinase pathways mediated by ERK, JNK, and p38 protein kinases. *Science* **298**, 1911-1912 (2002).
2. Philip, S. and Armstead, W.M. Differential role of PTK, ERK, and p38 MAPK in superoxide impairment of NMDA cerebrovasodilation. *Brain Res.* **979**, 98-103 (2003).
3. Shi, Y. and Gaestel, M. In the cellular garden of forking paths: How p38 MAPKs signal for downstream assistance. *Biol. Chem.* **383**, 1519-1536 (2002).
4. Ying, S.-W., Futter, M., Rosenblum, K., *et al.* Brain-derived neurotrophic factor induces long-term potentiation in intact adult hippocampus: Requirement for ERK activation coupled to CREB and upregulation of Arc synthesis. *J. Neurosci.* **22**(5), 1532-1540 (2002).
5. Lin, A., Minden, A., Martinetto, H., *et al.* Identification of a dual specificity kinase that activates the Jun kinases and p38-Mpk2. *Science* **268**, 286-290 (1995).

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WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY. NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

MATERIAL SAFETY DATA

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