
Anti-p38 MAP kinase

Cat #: HM1266
Rabbit polyclonal IgG
0.2 µg/µl, store at 4 °C

For research use only

BACKGROUND

p38 is a member of the MAP kinase family. MAP kinases act as an integration point for multiple biochemical signals, and are involved in a wide variety of cellular processes such as proliferation, differentiation, transcription regulation and development. This kinase is activated by various environmental stresses and proinflammatory cytokines. The activation requires its phosphorylation by MAP kinase kinases (MKKs), or its autophosphorylation triggered by the interaction of MAP3K7IP1/TAB1 protein with this kinase. The substrates of this kinase include transcription regulator ATF2, MEF2C, and MAX, cell cycle regulator CDC25B, and tumor suppressor p53, which suggest the roles of this kinase in stress related transcription and cell cycle regulation, as well as in genotoxic stress response.

SPECIFICITY

This antibody specifically reacts with p38 of human, mouse and rat origin.

The antibody can be used in Western blotting, immunoprecipitation and immunohistochemistry.

Molecular Weight of p38: 38 kDa.

Western blotting positive controls: Jurkat or NIH/3T3 cells.

IMMUNOGEN

A synthetic peptide derived from N-terminus of human p38 protein.

STORAGE

This antibody is stable for 12 months when stored at 2-8° C.

REFERENCES

1. Han, J., Lee, J.-D., Bibbs, L., and Ulevitch, R.J. 1994. A MAP kinase targeted by endotoxin and hyperosmolarity in mammalian cells. *Science* 265: 808-811.
2. Nishida, E. and Gotoh, Y. 1993. The MAP kinase cascade is essential for diverse signal transduction pathways. *Trends Biochem. Sci.* 18: 128-131.
3. Wang, X.Z. and Ron, D. (1996) Stress-induced phosphorylation and activation of the transcription factor CHOP (GADD153) by p38 MAP Kinase. *Science* 272, 1347-1349.
4. Kumar, S., McDonnell, P.C., Gum, R.J., Hand, A.T., Lee, J.C., and Young, P.R. 1997. Novel homologues of CSBP/p38 MAP kinase: activation, substrate specificity and sensitivity to inhibition by pyridinyl imidazoles. *Biochem. Biophys. Res. Commun.* 235: 533-538.
5. Wang, X.S., Diener, K., Manthey, C.L., Wang, S.W., Rosenweig, B., Bray, J., Delaney, J., Cole, C., Zukowski, M., and Yao, Z. 1997. Molecular cloning and charac-

terization of a novel p38 mitogen activated protein kinase. *J. Biol. Chem.* 272: 23668-23674.

6. Takenaka, K., Moriguchi, T. and Nishida, E. (1998) Activation of the protein kinase p38 in the spindle assembly checkpoint and mitotic arrest. *Science* 280, 599-602.
7. Bulavin, D.V., Higashimoto, Y., Popoff, I.J., Gaarde, W.A., Basrur, V., Potapova, O., Appella, E. and Fornace, A.J. Jr. (2001) Initiation of a G2/M checkpoint after ultraviolet radiation requires p38 kinase. *Nature* 411, 102-107.
8. Iwasa, H., Han, J. and Ishikawa, F. (2003) Mitogen-activated protein kinase p38 defines the common senescence-signalling pathway. *Genes Cells* 8, 131-144.
9. Pisegna, S., Pirozzi, G., Piccoli, M., Frati, L., Santoni, A. and Palmieri, G. (2004) p38 MAPK activation controls the TLR3-mediated up-regulation of cytotoxicity and cytokine production in human NK cells. *Blood* 104, 4157-4164.

PRODUCTS FROM HYPROMATRIX, INC.**A. AntibodyArray™s:**

1. Signal Transduction AntibodyArray™
Catalog Number HM3000
2. Apoptosis AntibodyArray™
Catalog Number HM4000
3. Cell Cycle AntibodyArray™
Catalog Number HM5000

B. Staining AntibodyArray™s

1. Staining AntibodyArray™ I
Catalog Number HM8100
2. AntibodyArray Staining Apparatus
Catalog Number HM8000

C. Antibodies**1. HRP-conjugated antibodies**

- anti-phosphotyrosine
Catalog Number HM2040
- anti-phosphoserine
Catalog Number HM2070
- anti-phosphothreonine
Catalog Number HM2090

and more...

2. Primary antibodies

Hypromatrix offers a variety of high quality antibodies. For a complete list of antibodies and their specificities, please visit our web site at www.hypromatrix.com.

CONTACT

Hypromatrix, Inc.
100 Barber Avenue
Worcester, MA 01606
USA

Tel: 508-856-7900
Fax: 508-302-0748
Email: contact@hypromatrix.com
Web: www.hypromatrix.com