

Phospho-Thr180/Tyr182 p38 MAPK Antibody

Affinity purified rabbit polyclonal antibody Catalog # AN1020

### Specification

## Phospho-Thr180/Tyr182 p38 MAPK Antibody - Product Information

Application Primary Accession Reactivity Predicted

Host Clonality Calculated MW WB, IHC <u>P70618</u> Human Bovine, Chicken, Mouse, Monkey, Rat, Zebrafish Rabbit polyclonal 39 KDa

### Phospho-Thr180/Tyr182 p38 MAPK Antibody - Additional Information

Gene ID70496Gene NameMAPK14Other NamesMitogen-activated protein kinase 14, MAP kinase 14, MAPK 14, CRK1, Mitogen-activated proteinkinase p38 alpha, MAP kinase p38 alpha, Mapk14, Csbp1, Csbp2

Target/Specificity

Synthetic phospho-peptide corresponding to amino acid residues surrounding Thr180/Tyr182 conjugated to KLH.

**Dilution** WB~~ 1:1000 IHC~~ 1:250

Format

Prepared from rabbit serum by affinity purification via sequential chromatography on phosphoand dephosphopeptide affinity columns.

### **Antibody Specificity**

Specific for the  $\sim$  39k p38 MAPK protein phosphorylated at Thr180/Tyr182. Immunolabeling is blocked by preadsorption of the antibody with the phosphopeptide used as antigen but not by the corresponding dephosphopeptide.

#### Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

#### Precautions

Phospho-Thr180/Tyr182 p38 MAPK Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Shipping Blue Ice

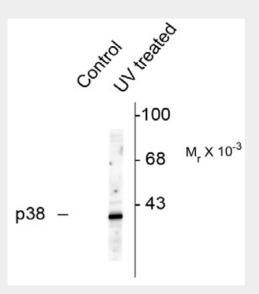


# Phospho-Thr180/Tyr182 p38 MAPK Antibody - Protocols

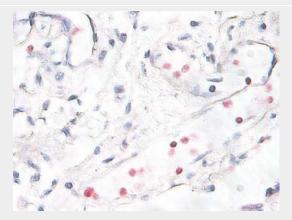
Provided below are standard protocols that you may find useful for product applications.

- <u>Western Blot</u>
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

### Phospho-Thr180/Tyr182 p38 MAPK Antibody - Images



Western blot of HeLa cell lysates that had been treated with UV or untreated (Control) showing specific immunolabeling of the ~39k p38 MAPK protein phosphorylated at Thr180/Tyr182.



Immunostaining of human breast cancer tissue showing p38 when phosphorylated at Thr180/Tyr182 in red. Photo courtesy of Patsy Ruegg.

# Phospho-Thr180/Tyr182 p38 MAPK Antibody - Background

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 (Johnson and Lapadat, 2002; Shi and Gaestel, 2002). 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 (Philip and Armstead, 2003; Ying et al., 2002). Like the other MAPKs, p38 is activated by a dual specificity kinase that phosphorylates Thr180 and Tyr182 (Lin et al., 1995).

## Phospho-Thr180/Tyr182 p38 MAPK Antibody - References

Johnson GL, Lapadat R (2002) Mitogen-activated protein kinase pathways mediated by ERK, JNK, and p38 protein kinases. Science 298:1911-1912.

Lin A, Minden A, Martinetto H, Claret F-X, Lange-Carter C, Mercurio F, Johnson GL, Karin M (1995) Identification of a dual specificity kinase that activates the Jun kinases and p38-Mpk2. Science 268:286-290.

Philip S, Armstead WM (2003) Differential role of PTK, ERK and p38 MAPK in superoxide impairment of NMDA cerebrovasodilation. Brain Res 979:98-103.

Shi Y, Gaestel M (2002) In the cellular garden of forking paths: How p38 MAPKs signal for downstream assistance. Biol Chem 383:1519-1536.

Ying SW, Futter M, Rosenblum K, Webber MJ, Hunt SP, Bliss TVP, Bramham CR (2002) 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 22:1532-1540. Phospho-Thr180/Tyr182 p38 MAPK Antibody - Citations

• The close association between IL-12Rβ2 and p38MAPK, and higher expression in the early stages of NSCLC, indicates a good prognosis for survival.