205 North Arkansas Street
Rogers, AR 72756

PRODUCT DATA SHEET

Product Name: **ANTI-PHOSPHO-Thr^{180}/Tyr^{182} p38 MAPK ANTIBODY**

Product Code: P46201-100

Pack Size: 100 µL

Description: 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 Thr^{180} and Tyr^{182} (Lin et al., 1995).

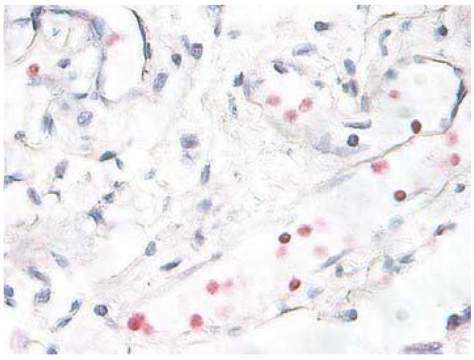
Physical State: Liquid; Buffer contents: 10 mM HEPES (pH 7.5), 150 mM NaCl, 100 µg per mL BSA and 50% glycerol

Storage/Stability: Stable at -20 °C for at least 1 year. For long term storage -20 °C is recommended

Purification Method: Prepared from rabbit serum by affinity purification via sequential chromatography on phospho- and dephosphopeptide affinity columns.

Shipping Conditions: Domestic: Blue Ice
International: Blue Ice or Dry Ice

Immunostaining
Human breast cancer tissue showing p38 when phosphorylated at Thr^{180}/Tyr^{182} in red. Photo courtesy of Patsy Ruegg.



Host Species: Rabbit (Polyclonal)

***Mr* (kDa):** 39

Immunogen: Phosphopeptide corresponding to amino acid residues surrounding the phospho-Thr^{180} and phospho-Tyr^{182} of rat p38 MAPK. Specific for the ~39k p38 MAPK protein phosphorylated at Thr^{180}/Tyr^{182}.

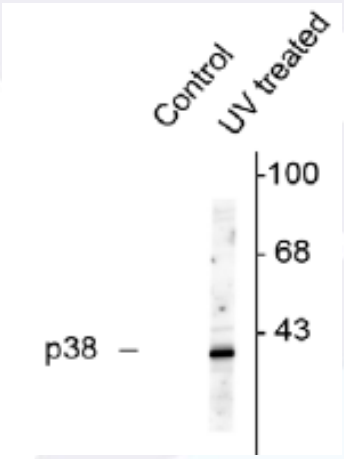
Species Reactivity: The antibody has been directly tested for reactivity in Western blots with human tissue. It is anticipated that the antibody will also react with bovine, canine, chicken, mouse, non-human primates, rat and zebra fish based on the fact that these species have 100% homology with the amino acid sequence used as antigen.

Recommended Antibody Dilutions:

WB: 1:1000
IHC: 1:250

References:
1) Johnson GL et al. (2002) *Science* 298:1911-1912.
2) Lin A et al. (1995) *Science* 268:286-290.
3) Philip S et al. (2003) *Brain Res* 979:98-103.
4) Shi Y et al. (2002) *Biol Chem* 383:1519-1536.
5) Ying SW et al. (2002) *J Neurosci* 22:1532-1540.

Western Blot
HeLa cell lysates that had been treated with UV or untreated (Control) showing specific immunolabeling of the ~39k p38 MAPK protein phosphorylated at Thr^{180}/Tyr^{182}.



Application Key: **WB – Western Blot** **IF – Immunofluorescence** **IHC – Immunohistochemistry** **IP - Immunoprecipitation**

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P/N: 74122 Rev 01