

#9212 Store at -20°C

p38 MAPK Antibody

- Small 200 µl (20 western blots)
- Large 600 µl (60 western blots)

rev. 04/05/11

This product is intended for research purposes only. This product is not intended to be used for therapeutic or diagnostic purposes in humans or animals.



Orders ■ 877-616-CELL (2355)
orders@cellsignal.com

Support ■ 877-678-TECH (8324)
info@cellsignal.com

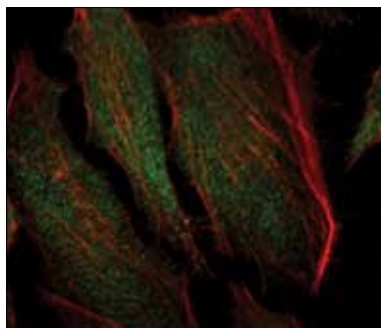
Web ■ www.cellsignal.com

Applications	Species Cross-Reactivity*	Molecular Wt.	Source
W, IHC-P, IF-IC, F Endogenous	H, M, R, Mk, GP, (C)	43 kDa	Rabbit**

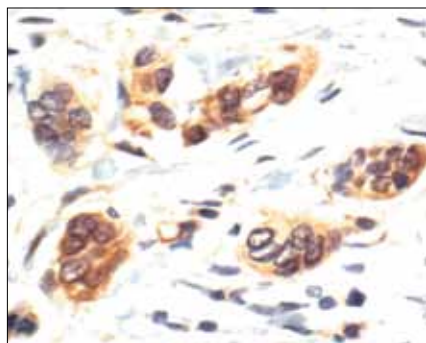
Background: p38 MAP kinase (MAPK), also called RK (1) or CSBP (2), is the mammalian orthologue of the yeast HOG kinase that participates in a signaling cascade controlling cellular responses to cytokines and stress (1-4). Four isoforms of p38 MAP kinase, p38 α , β , γ (also known as ERK6 or SAPK3) and δ (also known as SAPK4) have been identified. Similar to the SAPK/JNK pathway, p38 MAP kinase is activated by a variety of cellular stresses including osmotic shock, inflammatory cytokines, lipopolysaccharides (LPS), UV light and growth factors (1-5). MKK3, MKK6 and SEK activate p38 MAP kinase by phosphorylation at Thr180 and Tyr182. Activated p38 MAP kinase has been shown to phosphorylate and activate MAPKAP kinase 2 (3) and to phosphorylate the transcription factors ATF-2 (5), Max (6) and MEF2 (5-8).

Specificity/Sensitivity: p38 MAP Kinase Antibody detects endogenous levels of total p38 α , - β or - γ MAPK protein. This antibody does not recognize p38 δ , JNK/SAPK or p44/42 MAPK.

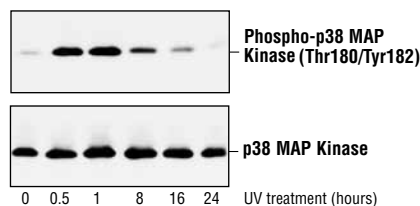
Source/Purification: Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to the sequence of human p38 MAPK. Antibodies are purified by protein A and peptide affinity chromatography.



Confocal immunofluorescent images of HeLa cells -/UV light labeled with #9212 p38 MAPK (green) exhibiting cytoplasmic localization in untreated cells (left) and nuclear localization in treated cells (right). Red = Actin filaments (phalloidin).



Immunohistochemical analysis of paraffin-embedded human breast carcinoma, showing nuclear and cytoplasmic localization, using p38 MAPK Antibody.



Western blot analysis of extracts from NIH/3T3 cells, untreated or UV-treated for the indicated times, using Phospho-p38 MAPK (Thr180/Tyr182) Antibody #9211 (upper) or p38 MAPK Antibody (lower).

IMPORTANT: For western blots, incubate membrane with diluted antibody in 5% w/v BSA, 1X TBS, 0.1% Tween-20 at 4°C with gentle shaking, overnight.

Entrez-Gene ID #1432
Swiss-Prot Acc. #Q16539

Storage: Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at -20°C. Do not aliquot the antibody.

*Species cross-reactivity is determined by western blot.

**Anti-rabbit secondary antibodies must be used to detect this antibody.

Recommended Antibody Dilutions:

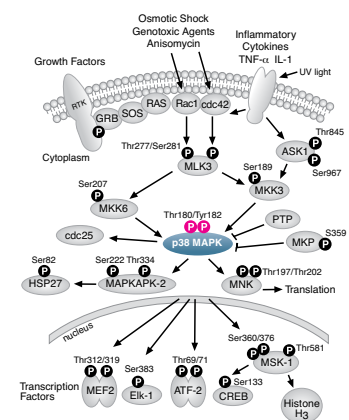
Western blotting	1:1000
Immunohistochemistry (Paraffin)	1:200†
Unmasking buffer:	Citrate
Antibody diluent:	SignalStain® Antibody Diluent #8112
Detection reagent:	SignalStain® Boost (HRP, Rabbit) #8114
†Optimal IHC dilutions determined using SignalStain® Boost IHC Detection Reagent.	
Immunofluorescence (IF-IC)	1:50
Flow Cytometry	1:50

For application specific protocols please see the web page for this product at www.cellsignal.com.

Please visit www.cellsignal.com for a complete listing of recommended companion products.

Background References:

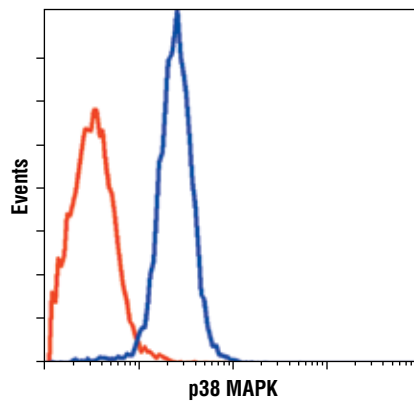
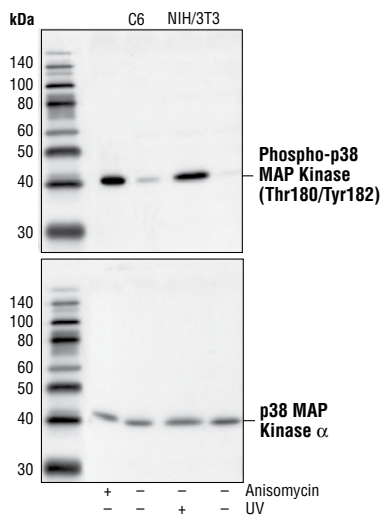
- (1) Rouse, J. et al. (1994) *Cell* 78, 1027-1037.
- (2) Han, J. et al. (1994) *Science* 265, 808-811.
- (3) Lee, J.C. et al. (1994) *Nature* 372, 739-746.
- (4) Freshney, N.W. et al. (1994) *Cell* 78, 1039-1049.
- (5) Raingeaud, J. et al. (1995) *J. Biol. Chem.* 270, 7420-7426.
- (6) Zervos, A.S. et al. (1995) *Proc. Natl. Acad. Sci. USA* 92, 10531-10534.
- (7) Zhao, M. et al. (1999) *Mol. Cell. Biol.* 19, 21-30.
- (8) Yang, S.H. et al. (1999) *Mol. Cell. Biol.* 19, 4028-4038.



Applications Key: W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide

Species Cross-Reactivity Key: H—human M—mouse R—rat Hm—hamster Mk—monkey Mi—mink C—chicken Dm—D. melanogaster X—Xenopus Z—zebrafish B—bovine

Dg—dog Pg—pig Sc—S. cerevisiae Ce—C. elegans Hr—Horse All—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.



Flow cytometric analysis of Jurkat cells, using p38 MAPK Antibody (blue) compared to a nonspecific negative control antibody (red).

Western blot analysis of extracts from C6 cells, untreated or anisomycin-treated, and NIH/3T3 cells, untreated or UV-treated, using phospho-p38 MAPK (Thr180/Tyr182) Antibody #9211 (upper) or p38 MAPK Antibody (lower).