

#9211 Store at -20°C

Phospho-p38 MAP Kinase (Thr180/Tyr182) Antibody

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



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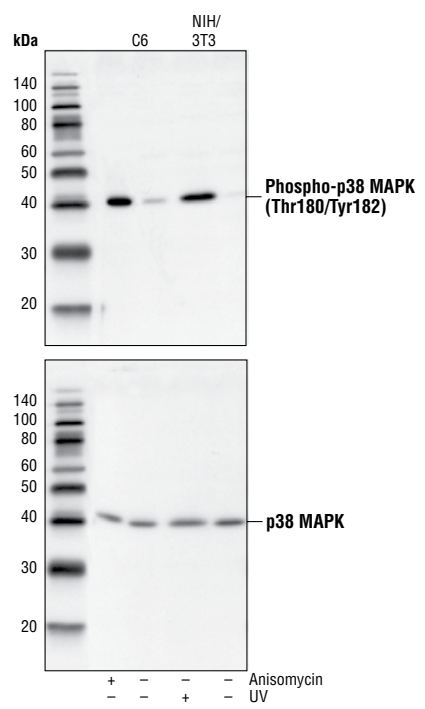
This product is intended for research purposes only. This product is not intended to be used for therapeutic or diagnostic purposes in humans or animals.

Applications	Species Cross-Reactivity*	Molecular Wt.	Source
W, IP, IF-IC, F Endogenous	H, M, R, Mk, Dm, Pg, Sc, (Z, B, Hm)	43 kDa	Rabbit**

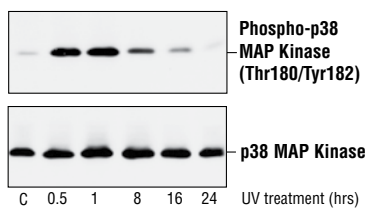
Background: p38 MAP kinase (MAPK), also called RK (1) or CSBP (2), is the mammalian orthologue of the yeast HOG kinase which participates in a signaling cascade controlling cellular responses to cytokines and stress (1-4). Four isoforms of p38 MAP kinase, p38 α , β , γ (also known as ERK6 or SAPK3) and 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: Phospho-p38 MAP Kinase (Thr180/Tyr182) Antibody detects endogenous levels of p38 MAP kinase only when activated by phosphorylation at threonine 180 and tyrosine 182. This antibody does not cross-react with the phosphorylated forms of either p42/44 MAPK or SAPK/JNK. It will also react with p38 singly phosphorylated at Thr180 and singly phosphorylated at Tyr182.

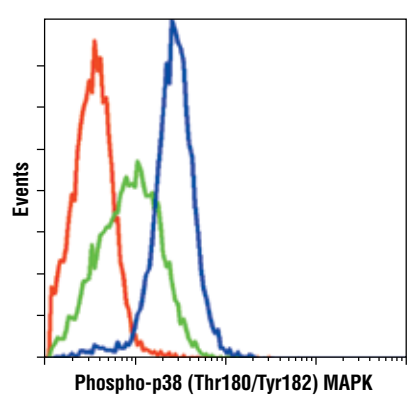
Source/Purification: Polyclonal antibodies are produced by immunizing animals with a synthetic phosphopeptide corresponding to residues around Thr180/Tyr182 of human p38 MAPK. Antibodies are purified by protein A and peptide affinity chromatography.



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 (upper) or p38 MAPK Antibody #9212 (lower)



Western blot analysis of extracts from UV-treated NIH/3T3 cells, using Phospho-p38 MAP Kinase (Thr180/Tyr182) Antibody (upper) or control p38 MAP Kinase Antibody #9212 (lower)



Flow cytometric analysis of Jurkat cells, untreated (green) or anisomycin treated (blue), using Phospho-p38 MAP Kinase (Thr180/Tyr182) Antibody compared to a nonspecific negative control antibody (red)

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

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

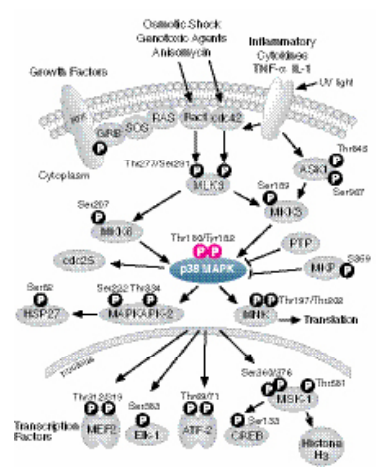
***Species cross-reactivity is determined by western blot.**
****Anti-rabbit secondary antibodies must be used to detect this antibody.**

Recommended Antibody Dilutions:

Western Blotting	1:1000
Immunoprecipitation	1:50
Immunofluorescence (IF-IC)	1:200
Flow Cytometry	1:200

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.

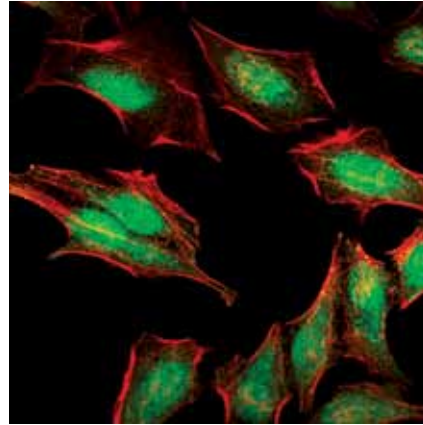
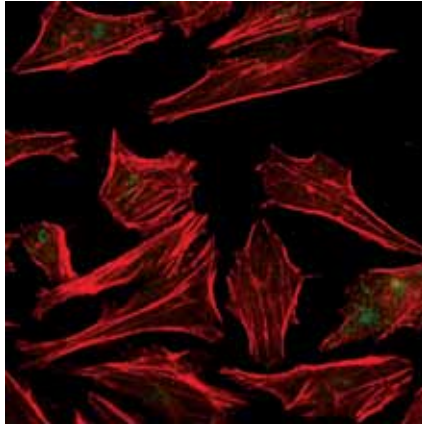


IMPORTANT: For western blots, incubate membrane with diluted antibody in 5% w/v BSA, 1X TBS, 0.1% Tween-20 at 4°C with gentle shaking, overnight.

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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.

Product Name	Product #	Western Blot	Immuno-precipitation	Immuno-histochemistry	Immuno-fluorescence	Flow Cytometry
Phospho-p38 MAP Kinase (Thr180/Tyr182) Antibody	9211	++	++	–	++	++
Phospho-p38 MAPK (Thr180/Tyr182) (28B10) Mouse mAb	9216	++	+++	–	–	++
Phospho-p38 MAPK (Thr180/Tyr182) (3D7) Rabbit mAb	9215	+++	–	–	++	+++
Phospho-p38 MAPK (Thr180/Tyr182)(12F8) Rabbit mAb (IHC Preferred)	4631	++	–	+++	+++	–



Confocal immunofluorescent analysis of HeLa cells +/- UV light, labeled with Phospho-p38 MAP Kinase (green). Absence of staining in untreated cells (left) and cytoplasmic localization in treated cells (right). Red = Actin filaments (phalloidin).

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.