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#14451

p38 MAPK (D13E1) XP[®] Rabbit mAb (HRP Conjugate)

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Entrez-Gene ID #1432, 5600, 6300
UniProt ID #Q16539, Q15759, P53778

New 10/14

For Research Use Only. Not For Use In Diagnostic Procedures.

Applications
W
Endogenous

Species Cross-Reactivity*
B, H, M, R, Mk, Hm, Pg, (C)

Molecular Wt.
40 kDa

Isotype
Rabbit IgG

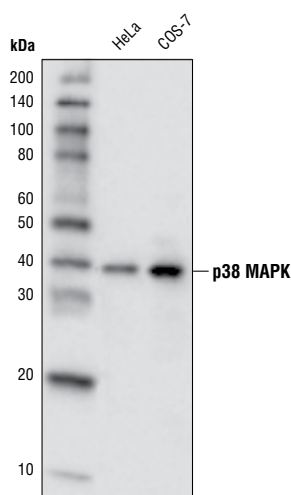
Description: This Cell Signaling Technology antibody is conjugated to the carbohydrate groups of horseradish peroxidase (HRP) via its amine groups. The HRP conjugated antibody is expected to exhibit the same species cross-reactivity as the unconjugated p38 MAPK (D13E1) XP[®] Rabbit mAb #8690.

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 MAPK, 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 MAPK is activated by a variety of cellular stresses including osmotic shock, inflammatory cytokines, lipopolysaccharide (LPS), UV light, and growth factors (1-5). MKK3, MKK6, and SEK activate p38 MAPK by phosphorylation at Thr180 and Tyr182. Activated p38 MAPK 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).

SB203580 (4-(4-fluorophenyl)-2-(4-methylsulfinylphenyl)-5-(4-pyridyl)-imidazole) is a selective inhibitor of p38 MAPK. This compound inhibits the activation of MAPKAP-2 by p38 MAPK and subsequent phosphorylation of HSP27 (9). SB203580 inhibits p38 MAPK catalytic activity by binding to the ATP-binding pocket, but does not inhibit phosphorylation of p38 MAPK by upstream kinases (10).

Specificity/Sensitivity: p38 MAPK (D13E1) XP[®] Rabbit mAb (HRP Conjugate) recognizes endogenous levels of total p38 α , β , or γ MAPK protein. This antibody does not recognize p38 δ , SAPK/JNK, or p44/42 MAPK proteins.

Source/Purification: Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues near the carboxy terminus of human p38 protein.



Western blot analysis of extracts from HeLa and COS-7 cells using p38 MAPK (D13E1) XP[®] Rabbit mAb (HRP Conjugate).

Storage: Supplied in 136 mM NaCl, 2.6 mM KCl, 12 mM sodium phosphate (pH 7.4) dibasic, 2 mg/ml BSA, and 50% glycerol. Store at -20°C. Do not aliquot the antibodies.

***Species cross-reactivity is determined by western blot using the unconjugated antibody.**

HRP-conjugated antibodies do not require incubation with a secondary antibody.

Recommended Antibody Dilutions:

Western blotting 1:1000

For product specific protocols and a complete listing of recommended companion products please see the product web page at www.cellsignal.com

Background References:

- (1) Rouse, J. et al. (1994) *Cell* 78, 1027-37.
- (2) Han, J. et al. (1994) *Science* 265, 808-11.
- (3) Lee, J.C. et al. (1994) *Nature* 372, 739-46.
- (4) Freshney, N.W. et al. (1994) *Cell* 78, 1039-49.
- (5) Raingeaud, J. et al. (1995) *J Biol Chem* 270, 7420-6.
- (6) Zervos, A.S. et al. (1995) *Proc Natl Acad Sci U S A* 92, 10531-4.
- (7) Zhao, M. et al. (1999) *Mol Cell Biol* 19, 21-30.
- (8) Yang, S.H. et al. (1999) *Mol Cell Biol* 19, 4028-38.
- (9) Cuenda, A. et al. (1995) *FEBS Lett* 364, 229-33.
- (10) Kumar, S. et al. (1999) *Biochem Biophys Res Commun* 263, 825-31.

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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: W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide **Species Cross-Reactivity:** 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.