

#3007 Store at -20°C

Phospho-MAPKAPK-2 (Thr334) (27B7) Rabbit mAb

- Small 100 µl (10 western blots)
- Large 300 µl (30 western blots)



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rev. 01/25/10

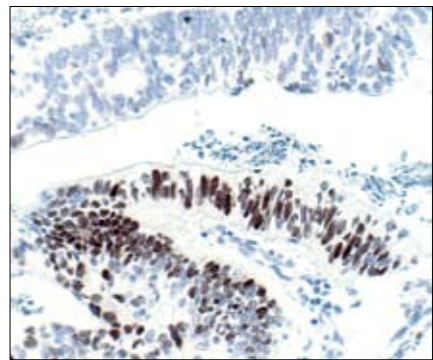
This product is intended for research purposes only. This product is not intended to be used for therapeutic or diagnostic purposes in humans or animals.

Applications	Species Cross-Reactivity*	Molecular Wt.	Isotype
W, IHC-P, IF-IC, F Endogenous	H, M, R, Mk	49 kDa	Rabbit IgG**

Background: In response to cytokines, stress and chemotactic factors, MAP kinase-activated protein kinase 2 (MAPKAPK-2) is rapidly phosphorylated and activated. It has been shown that MAPKAPK-2 is a direct target of p38 MAPK (1). Multiple residues of MAPKAPK-2 are phosphorylated *in vivo* in response to stress. However, only four of the residues: Thr25, Thr222, Ser272 and Thr334 are phosphorylated by p38 MAPK in an *in vitro* kinase assay (2). Phosphorylation at Thr222, Ser272 and Thr334 appears to be essential for the activity of MAPKAPK-2 (2). Thr25 is phosphorylated by p42 MAPK *in vitro*, but is not required for the activation of MAPKAPK-2 (2).

Specificity/Sensitivity: Phospho-MAPKAPK-2 (Thr334) (27B7) Rabbit mAb detects endogenous levels of MAPKAPK-2 protein only when phosphorylated at threonine 334.

Source/Purification: Monoclonal antibody is produced by immunizing animals with a synthetic phosphopeptide (KLH-coupled) corresponding to residues surrounding Thr334 of human MAPKAPK-2.



Immunohistochemical analysis of paraffin-embedded human colon carcinoma, showing nuclear localization, using Phospho-MAPKAPK-2 (Thr334) (27B7) Rabbit mAb.

Entrez-Gene ID #9261
Swiss-Prot Acc. #P49137

Storage: Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. 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:

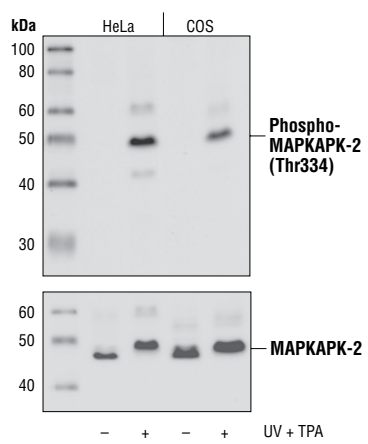
Western blotting	1:1000
Immunohistochemistry (Paraffin)	1:50
Unmasking buffer:	Citrate
Antibody diluent:	SignalStain® Antibody Diluent #8112
Immunofluorescence (IF-IC)	1:200
Flow Cytometry	1:200

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

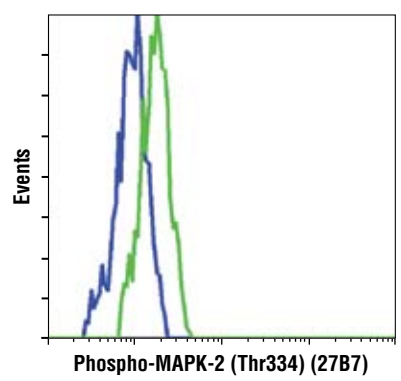
Please visit www.cellsignal.com for a complete listing of recommended companion products.

Background References:

- (1) Rouse, J. et al. (1994) *Cell* 78, 1027-1037.
- (2) Ben-Levy, R. et al. (1995) *EMBO J.* 14, 5920-5930.
- (3) Manke, I.A. et al. (2005) *Mol. Cell* 17, 37-48.



Western blot analysis of extracts from untreated or UV+TPA-treated HeLa and COS cells, using Phospho-MAPKAPK-2 (Thr334) (27B7) Rabbit mAb (upper), or MAPKAPK-2 Antibody #3042 (lower).



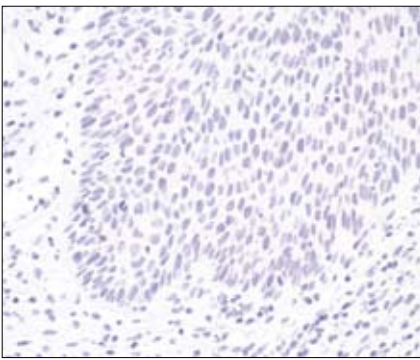
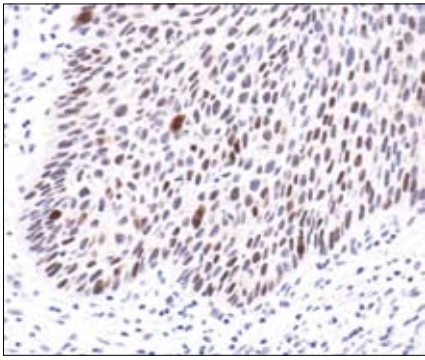
Flow cytometric analysis of HeLa cells, untreated (blue) or UV-treated (green), using Phospho-MAPKAPK-2 (Thr334) (27B7) Rabbit mAb.

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.

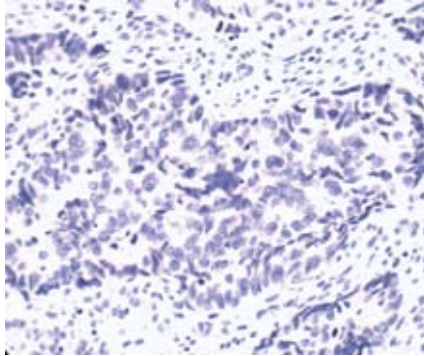
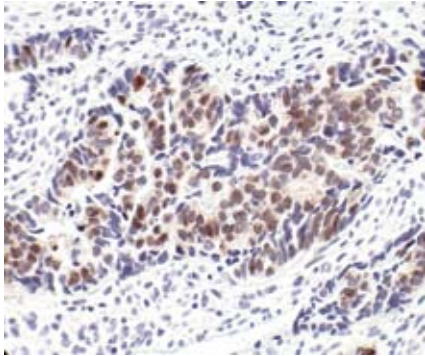
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Applications Key: W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide

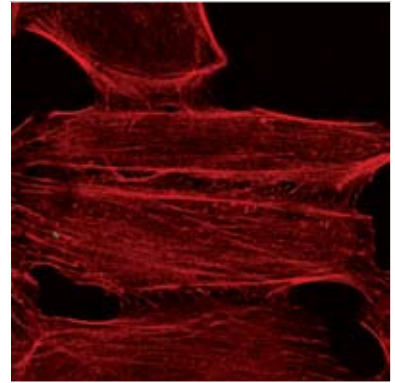
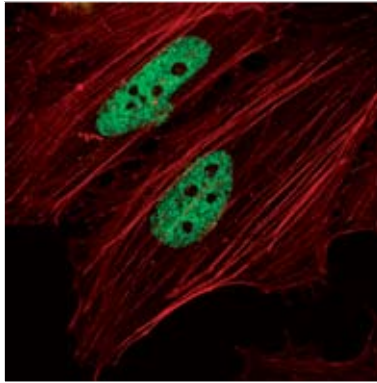
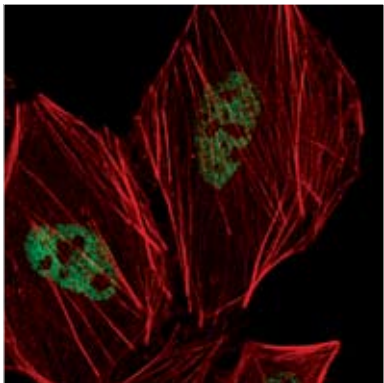
Species Cross-Reactivity Key: H—human M—mouse R—rat Hm—hamster Mk—monkey Mi—mink C—chicken Dm—D. melanogaster X—Xenopus Z—zebrafish B—bovine Dg—dog Pg—pig Sc—S. cerevisiae Ce—C. elegans Hr—Horse All—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.



Immunohistochemical analysis of paraffin-embedded human lung carcinoma untreated (left) or λ phosphatase-treated (right), using Phospho-MAPKAPK-2 (Thr334) (27B7) Rabbit mAb.



Immunohistochemical analysis of paraffin-embedded human colon carcinoma using Phospho-MAPKAPK-2 (Thr334) (27B7) Rabbit mAb in the presence of control peptide (left) or Phospho-MAPKAPK-2 (Thr334) Blocking Peptide #1041 (right).



Confocal immunofluorescent analysis of HeLa cells, untreated (left), UV-treated (center) or UV and λ phosphatase-treated (right), using Phospho-MAPKAPK-2 (Thr334) (27B7) Rabbit mAb (green). Actin filaments have been labeled with DY-554 phalloidin (red).