

#1041 Store at -20°C

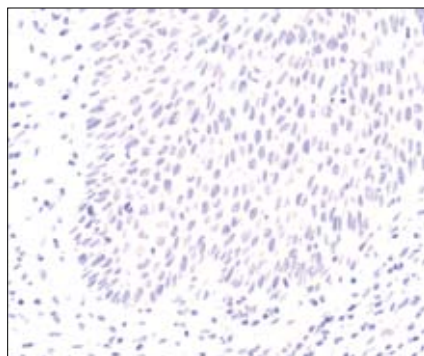
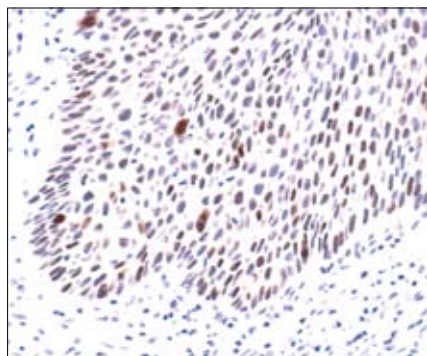
Phospho-MAPKAPK-2 (Thr334) Blocking Peptide

✓ 100 µg
(10 Western mini-blots)

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This product is for *in vitro* research use only and is not intended for use in humans or animals.



Immunohistochemical analysis of paraffin-embedded human lung carcinoma, using Phospho-MAPKAPK-2 (Thr334) (27B7) Rabbit mAb (#3007) in the presence of control peptide (left), or Phospho-MAPKAPK-2 (Thr334) Blocking Peptide (right).

Description: This peptide is used to block Phospho-MAPKAPK-2 (Thr334) (27B7) Rabbit mAb #3007 reactivity. It can also be used to block Phospho-MAPKAPK-2 (Thr334) Antibody #3041.

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).

Quality Control: The quality of the peptide was evaluated by reversed-phase HPLC and by mass spectrometry. The peptide blocks Phospho-MAPKAPK-2 (Thr334) (27B7) Rabbit mAb #3007 signal in immunohistochemistry.

Applications: Use as a blocking reagent to evaluate the specificity of antibody reactivity in immunohistochemistry protocols.

Directions for Use: For immunohistochemistry, add twice the volume of peptide as volume of antibody used in 100 µl total volume. Incubate for a minimum of 30 minutes prior to adding the entire volume to the slide. Recommended antibody dilutions can be found on the product data sheet.

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.

Storage: Supplied in 20 mM potassium phosphate (pH 7.0), 50 mM NaCl, 0.1 mM EDTA, 1 mg/ml BSA and 5% glycerol. Store at -20°C.

Companion Products:

Phospho-MAPKAPK-2 (Thr334) (27B7) Rabbit mAb #3007
Phospho-MAPKAPK-2 (Thr334) Antibody #3041