

Phospho-MEK1/2 (Ser221) Blocking Peptide

✓ 100 µg

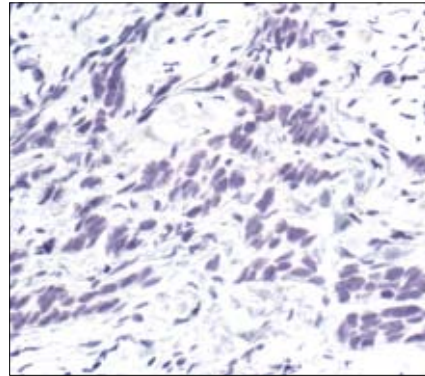
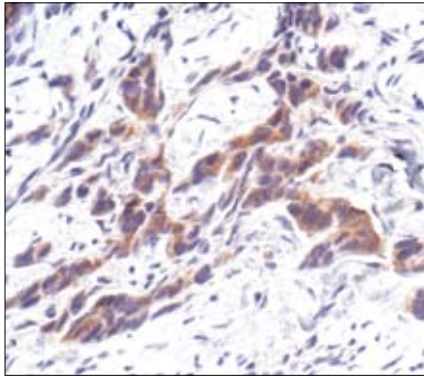
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This product is for *in vitro* research use only and is not intended for use in humans or animals.



Immunohistochemical analysis of paraffin-embedded human breast carcinoma using Phospho-MEK1/2 (Ser221) (166F8) Rabbit mAb #2338 in the presence of control peptide (left) or Phospho-MEK1/2 (Ser221) Blocking Peptide (right).

Background: MEK1 and MEK2, also called MAPK or Erk kinases, are dual-specificity protein kinases that function in a mitogen activated protein kinase cascade controlling cell growth and differentiation (1-3). Activation of MEK1 and MEK2 occurs through phosphorylation of two serine residues at positions 217 and 221 (in the activation loop of subdomain VIII) by Raf-like molecules. MEK1/2 is activated by a wide variety of growth factors and cytokines and also by membrane depolarization and calcium influx (1-4). Constitutively active forms of MEK1/2 are sufficient for the transformation of NIH/3T3 cells or the differentiation of PC12 cells (4). MEK activates p44 and p42 MAP kinase by phosphorylating both threonine and tyrosine residues at sites located within the activation loop of kinase subdomain VIII.

Description: This peptide is used to specifically block Phospho-MEK1/2 (Ser221) (166F8) Rabbit mAb #2338 reactivity.

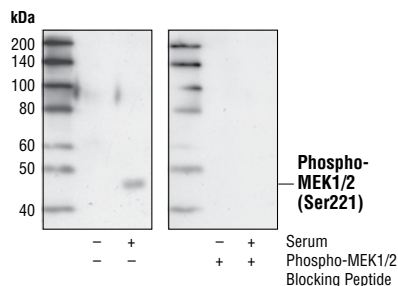
Quality Control: The quality of the peptide was evaluated by reversed-phase HPLC and by mass spectrometry. The peptide blocks Phospho-MEK1/2 (Ser221) (166F8) Rabbit mAb #2338 signal in both immunohistochemistry and Western blotting.

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

Notes on 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 Phospho-MEK1/2 (Ser221) (166F8) Rabbit mAb #2338 data sheet. For Western blotting, add 10 µl of antibody and 10 µl of blocking peptide to 10 ml of antibody dilution buffer, and incubate at room temperature for 30 minutes before allowing to react with the blot.

Background References:

- (1) Crews, C.M. et al. (1992) *Science* 258, 478–480.
- (2) Alessi, D.R. et al. (1994) *EMBO J.* 13, 1610–1619.
- (3) Rosen, L.B. et al. (1994) *Neuron* 12, 1207–1221.
- (4) Cowley, S. et al. (1994) *Cell* 77, 841–852.



Western Blot analysis of extracts from NIH/3T3 cells, untreated or serum-treated, using Phospho-MEK1/2 (Ser221) (166F8) Rabbit mAb #2338 (left) or same antibody preincubated with Phospho-MEK1/2 (Ser221) Blocking Peptide (right).

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-MEK1/2 (Ser221) (166F8) Rabbit mAb #2338