

# Phospho-MEK1/2 (Ser221) Blocking Peptide

✓ 100 µg



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

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

**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, located 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 PC-12 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.

**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 peptide dot blot.

**Directions for Use:** Use as a blocking reagent to evaluate the specificity of antibody reactivity in peptide dot blot protocols. Recommended antibody dilutions can be found on the Phospho-MEK1/2 (Ser221) (166F8) Rabbit mAb #2338 data sheet.

**Entrez Gene ID** #5604, 5605

**UniProt ID** #Q02750, P36507

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

**For product specific protocols please see the web page for this product at [www.cellsignal.com](http://www.cellsignal.com).**

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**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.