#9160 Store at -20°C

MEK1/2 Control Cell Extracts

☑ 200 ul (Controls for 10 western blots)

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

Product Includes	Product #	Quantity
MEK1/2 Control Cell Extracts (HeLa untreated)	10798	200 ul
MEK1/2 Control Cell Extracte (HeLa +TPA)	18228	200 ul

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: *Nonphosporylated MEK1/2 Control Cell Extracts:* Total cell extracts from HeLa cells, serum starved overnight serve as a negative control. Supplied in SDS Sample Buffer.

Phosphorylated MEK1/2 Control Cell Extracts: Total cell extracts from HeLa cells, serum starved overnight then treated with 200 nM TPA #4174 for 15 minutes to serve as a positive control. Supplied in SDS Sample Buffer.

Directions for Use: Boil for 3 minutes prior to use. Load 20 µl of phosphorylated and nonphosphorylated MEK1/2 Control Cell Extracts per lane.

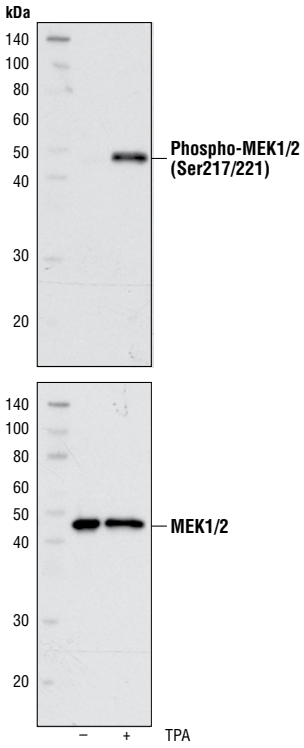
Background References:

(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 Hela cells, untreated or TPA-treated, using Phospho-MEK1/2 (Ser217/221) (41G9) RmAb #9154 (upper) or MEK1/2 (D1A5) Rabbit mAb #8727 (lower).

Storage: Supplied in SDS Sample Buffer: 62.5 mM Tris-HCl (pH 6.8 at 25°C), 2% w/v SDS, 10% glycerol, 50 mM DTT, 0.01% w/v phenol red or bromophenol blue. Store at –20°C or at –80°C for long term storage.

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

MEK1/2 Signaling Pathway

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 **All**—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.