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MEK1/2 Control Cell Extracts

Controls for 10 western blots

For Research Use Only. Not for Use in Diagnostic Procedures.

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

Description	<p>Nonphosphorylated MEK1/2 Control Cell Extracts: Total cell extracts from HeLa cells, serum starved overnight serve as a negative control. Supplied in SDS Sample Buffer.</p> <p>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.</p>
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.
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.
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	<ol style="list-style-type: none"> 1. Crews, C.M. et al. (1992) <i>Science</i> 258, 478-480. 2. Alessi, D.R. et al. (1994) <i>EMBO J.</i> 13, 1610-19. 3. Rosen, L.B. et al. (1994) <i>Neuron</i> 12, 1207-21. 4. Cowley, S. et al. (1994) <i>Cell</i> 77, 841-52.

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