

MEK1 (61B12) Mouse mAb

✓ 100 µl
(20 western blots)

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rev. 01/26/10

This product is intended for research purposes only. This product is not intended to be used for therapeutic or diagnostic purposes in humans or animals.

Entrez-Gene ID #5604
Swiss-Prot Acc. #Q02750

Applications	Species Cross-Reactivity*	Molecular Wt.	Isotype
W, IP Endogenous	H, M, R, Mk	45 kDa	Mouse IgG2a**

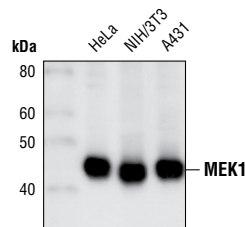
Background: MEK1 and MEK2, also called MAPK or Erk kinases, are dual-specificity protein kinases that function in a mitogen activated protein kinase cascade controlling cell growth and differentiation (1–3). Activation of MEK1 and MEK2 occurs through phosphorylation of two serine residues at positions 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.

Specificity/Sensitivity: MEK1 (61B2) Mouse mAb detects endogenous levels of total MEK1 protein. This antibody does not cross-react with MEK2 and other MAP kinase kinases.

Source/Purification: Monoclonal antibodies are produced by immunizing mice with full length MEK1 proteins.

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, NIH/3T3 and A431 cells, using MEK1 (61B2) Mouse mAb.

Storage: Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide Store at -20°C. Do not aliquot the antibody.

*Species cross-reactivity is determined by western blot.

**Anti-mouse secondary antibodies must be used to detect this antibody.

Recommended Antibody Dilutions:

Western blotting	1:2000
Immunoprecipitation	1:50

For application specific protocols please see the web page for this product at www.cellsignal.com.

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

IMPORTANT: For western blots, incubate membrane with diluted antibody in 5% w/v nonfat dry milk, 1X TBS, 0.1% Tween-20 at 4°C with gentle shaking, overnight.