MEK1/2 (Ser218/222). Rabbit Antigen Immunoaffinity Purified Polyclonal , Human, Mouse, Rat, Xenopus

Background

MEK 1 and MEK 2 are integral components of the MAP kinase cascade that regulates cell growth and differentiation and this pathway also plays a key role in synaptic plasticity in brain. Activation of MEK 1/2 occurs via phosphorylation of two serine residues (Ser^{218} and Ser^{222}). Activated MEK 1/2 then acts as a dual specificity kinase phosphorylating both a threonine and a tyrosine residue on ERK. This phosphorylation of ERK by MEK 1/2 is a critical step in the MAP kinase cascade.

Ordering Information

Catalog Number
X1673P

Size
10 Miniblots

Form
Affinity Purified

Host/Clone
Rabbit

Formulation
Provided in HEPES (pH 7.5) solution containing 150 mM NaCl, 100 µg per ml BSA and 50% glycerol

Concentration
Varies from lot to lot

Isotype
IgG

Applications
Western Blot, Dot Blot

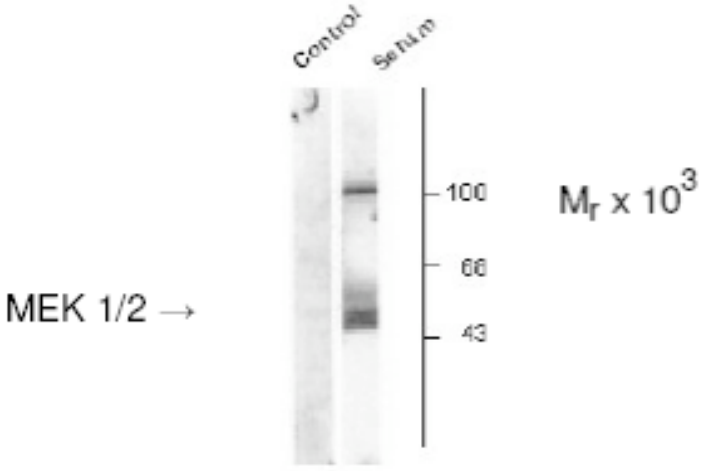
Species Reactivity

Human, Mouse, Rat, Xenopus

Immunogen

Synthetic phosphopeptide corresponding to amino acid residues surrounding the phospho $Ser^{218/222}$ of human MEK1/2

Legend:
Western Blot of NIH 3T3 cell lysates. The cells were either serum starved (Control) or incubated in the presence of serum for 5 minutes. The Western blot shows the immunolabeling of the ~45k MEK 1/2 was absent in controls and stimulated by serum. Immunolabeling of an additional band at ~100k was also seen.



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POSITIVE CONTROL/TISSUE EXPRESSION

NIH3T3 cell lysate

COMMENTS

Antibody should be used at a 1:1000 dilution to provide for 10 miniblots in Western blotting and dot blots. Antibody detects only phosphorylated protein and does not detect non-phosphorylated protein as shown by the lack of ability of a non-phospho peptide to block the antibody activity. Optimal concentration may be evaluated by serial dilutions.

SHIP CONDITIONS

Ship on gel ice, freeze upon arrival

STORAGE CUSTOMER

Product should be stored at -70ºC. Aliquot to avoid freeze/thaw cycles

STABILITY

Products are stable for one year from purchase when stored properly

REFERENCES

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Ahn, N.G., et al. "Identification of an activator of the microtubule-associated protein 2 kinases ERK1 and ERK2 in PC12 cells stimulated with nerve growth factor or bradykinin," J. Neurochem. 59, 147 -156 (1992).

Ahn, N.G. "The MAP kinase cascade. Discovery of a new signal transduction pathway," Mol. Cell Biochem. 127-128, 201-209 (1993).

Crews, C.M., et al. "The primary structure of MEK, a protein kinase that phosphorylates the ERK gene product," Science 258, 478-480 (1992).

Park, S.H., et al. "Rewiring MAP kinase pathways using alternative scaffold assembly mechanisms," Science 299, 1061-1064 (2003).

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