

## MEK1 (Thr386). Rabbit Antigen Immunoaffinity Purified Polyclonal , Human

### BACKGROUND

MEK 1 (MAP Kinase Kinase, also known as MKK) is an integral component of the MAP kinase cascade that regulates cell growth and differentiation and this pathway also plays a key role in synaptic plasticity in brain. Activated MEK 1 acts as a dual specificity kinase phosphorylating both a threonine and a tyrosine residue on MAP kinase. Conversely there also appears to be a feedback phosphorylation of MEK 1 by MAP kinase. The sites on MEK 1 that are phosphorylated by MAP kinase are Thr<sup>292</sup> and Thr<sup>386</sup>.

### ORDERING INFORMATION

**CATALOG NUMBER**  
X1672P

**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

### IMMUNOGEN

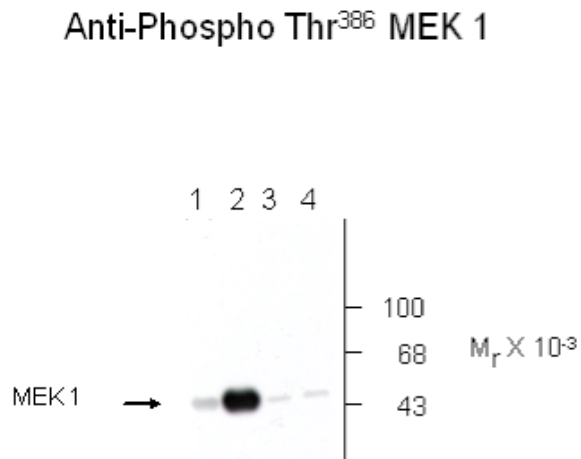
Synthetic phosphopeptide corresponding to amino acid residues surrounding the phospho Thr<sup>386</sup> of human MEK1

### SPECIES REACTIVITY

Human

### Legend:

Western Blot of recombinant WT and mutant MEK 1 immunolabeled with the Anti Thr<sup>386</sup> MEK1 antibody. Lanes 1 and 2 are WT MEK 1 and Lanes 3 and 4 are mutant MEK 1 (T386A). MAP kinase was coexpressed in the samples run in Lanes 2 and 4.



**For research use only. Not for use in human diagnostics or therapeutics.**

**POSITIVE CONTROL/TISSUE EXPRESSION**

Human brain 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 -70°C. Aliquot to avoid freeze/thaw cycles

**STABILITY**

Products are stable for one year from purchase when stored properly

**REFERENCES**

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2. Ahn, N.G. "The MAP kinase cascade. Discovery of a new signal transduction pathway," *Mol. Cell Biochem.* 127-128, 201-209 (1993).
3. 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).
4. Crews, C.M., et al. "The primary structure of MEK, a protein kinase that phosphorylates the ERK gene product," *Science* 258, 478-480 (1992).
5. Mansour, S.J., et al. "Mitogen-activated protein (MAP) kinase phosphorylation of MAP kinase kinase: determination of phosphorylation sites by mass spectrometry and site-directed mutagenesis." *J. Biochem. (Tokyo)* 116, 304-314 (1994).
6. Park, S.H., et al. "Rewiring MAP kinase pathways using alternative scaffold assembly mechanisms," *Science* 299, 1061-1064 (2003).

**LAST MODIFIED** 2/7/2008

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