

MEK-6 (K-19): sc-1991

BACKGROUND

A family of protein kinases located upstream of the MAP kinases and responsible for their activation has been identified. The prototype member of this family, designated MAP kinase kinase, or MEK-1, specifically phosphorylates the MAP kinase regulatory threonine and tyrosine residues present in the Thr-Glu-Tyr motif of ERK. A second MEK family member, MEK-2, resembles MEK-1 in its substrate specificity. MEK-3 (or MKK-3) functions to activate p38 MAP kinase, and MEK-4 (also called SEK1 or Mkk4) activates both p38 and JNK MAP kinases. MEK-5 appears to specifically phosphorylate ERK 5, whereas MEK-6 phosphorylates p38 and p38b. MEK-7 (or Mkk7) phosphorylates and activates the JNK signal transduction pathway.

REFERENCES

1. Crews, C.M., et al. 1992. The primary structure of MEK, a protein kinase that phosphorylates the ERK gene product. *Science* 258: 478-480.
2. Wu, J., et al. 1993. Identification and characterization of a new mammalian mitogen-activated protein kinase kinase, Mkk2. *Mol. Cell. Biol.* 13: 4539-4548.

CHROMOSOMAL LOCATION

Genetic locus: MAP2K6 (human) mapping to 17q24.3; Map2k6 (mouse) mapping to 11 E2.

SOURCE

MEK-6 (K-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of MEK-6 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-1991 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

MEK-6 (K-19) is recommended for detection of MEK-6 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

MEK-6 (K-19) is also recommended for detection of MEK-6 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for MEK-6 siRNA (h): sc-35913, MEK-6 siRNA (m): sc-35914, MEK-6 shRNA Plasmid (h): sc-35913-SH, MEK-6 shRNA Plasmid (m): sc-35914-SH, MEK-6 shRNA (h) Lentiviral Particles: sc-35913-V and MEK-6 shRNA (m) Lentiviral Particles: sc-35914-V.

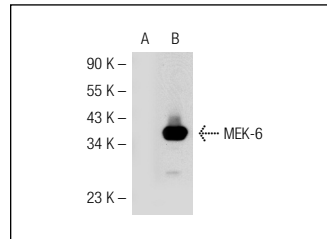
Molecular Weight of MEK-6: 37 kDa.

Positive Controls: MEK-6 (h): 293T Lysate: sc-113820, HeLa whole cell lysate: sc-2200 or COLO 320DM cell lysate: sc-2226.

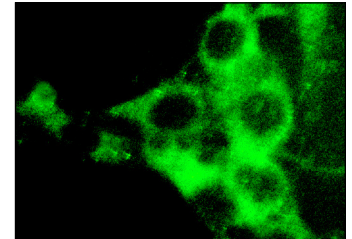
STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

DATA



MEK-6 (K-19): sc-1991. Western blot analysis of MEK-6 expression in non-transfected: sc-117752 (A) and human MEK-6 transfected: sc-113820 (B) 293T whole cell lysates.



MEK-6 (K-19): sc-1991. Immunofluorescence staining of methanol-fixed Sol8 cells showing cytoplasmic localization.

SELECT PRODUCT CITATIONS

1. Nick, J.A., et al. 1999. Selective activation and functional significance of p38 α mitogen-activated protein kinase in lipopolysaccharide-stimulated neutrophils. *J. Clin. Invest.* 103: 851-858.
2. Xiao, Y.Q., et al. 2002. Cross-talk between ERK and p38 MAPK mediates selective suppression of pro-inflammatory cytokines by transforming growth factor- β . *J. Biol. Chem.* 277: 14884-14893.
3. Feifel, E., et al. 2002. p38 MAPK mediates acid-induced transcription of PEPCK in LLC-PK1-FBPase+ cells. *Am. J. Physiol. Renal Physiol.* 283: F678-F688.
4. Dermott, J.M., et al. 2004. Differential regulation of Jun N-terminal kinase and p38MAP kinase by Ga12. *Oncogene* 23: 226-232.
5. Liu, W.H., et al. 2005. Deltex regulates T-cell activation by targeted degradation of active MEK1. *Mol. Cell. Biol.* 25: 1367-1378.
6. Harding, S.J., et al. 2010. Activation of ASK1, downstream MAPKK and MAPK isoforms during cardiac ischaemia. *Biochim. Biophys. Acta* 1802: 733-740.
7. Meyer, R.D., et al. 2011. PEST motif serine and tyrosine phosphorylation controls vascular endothelial growth factor receptor 2 stability and downregulation. *Mol. Cell. Biol.* 31: 2010-2025.

RESEARCH USE

For research use only, not for use in diagnostic procedures.


 MONOS
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Try **MEK-6 (C-1): sc-166746** or **MEK-6 (G-12): sc-166728**, our highly recommended monoclonal alternatives to MEK-6 (K-19).