

# MEK kinase-1 (P-19): sc-49448

## BACKGROUND

Mitogen-activated protein (MAP) kinase cascades are activated by various extracellular stimuli, including growth factors. The MEK kinases (also designated MAP kinase kinase kinases, MKKKs, MAP3Ks or MEKKs) phosphorylate and thereby activate the MEKs (also called MAP kinase kinases or MKKs), including ERK, JNK and p38. These activated MEKs in turn phosphorylate and activate the MAP kinases. The MEK kinases include Raf-1, Raf-B, Mos, MEK kinase-1, MEK kinase-2, MEK kinase-3, MEK kinase-4 and ASK 1 (MEK kinase-5). MEK kinase-1 activates the ERK and c-Jun NH<sub>2</sub>-terminal kinase (JNK) pathways by phosphorylation of MAP2K1 and MAP2K4, and also activates the central protein kinases of the NFκB pathway, CHUK and IKKβ. Additionally, MEK kinase-1 uses an E3 ligase through its PHD domain, a RING-finger-like structure, to target proteins for degradation through ubiquitination.

## CHROMOSOMAL LOCATION

Genetic locus: MAP3K1 (human) mapping to 5q11.2; Map3k1 (mouse) mapping to 13 D2.2.

## SOURCE

MEK kinase-1 (P-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of MEK kinase-1 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-49448 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

MEK kinase-1 (P-19) is recommended for detection of MEK kinase-1 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 kinase-1 (P-19) is also recommended for detection of MEK kinase-1 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for MEK kinase-1 siRNA (h): sc-35898, MEK kinase-1 siRNA (m): sc-35899, MEK kinase-1 shRNA Plasmid (h): sc-35898-SH, MEK kinase-1 shRNA Plasmid (m): sc-35899-SH, MEK kinase-1 shRNA (h) Lentiviral Particles: sc-35898-V and MEK kinase-1 shRNA (m) Lentiviral Particles: sc-35899-V.

Molecular Weight of full length MEK kinase-1: 195 kDa.

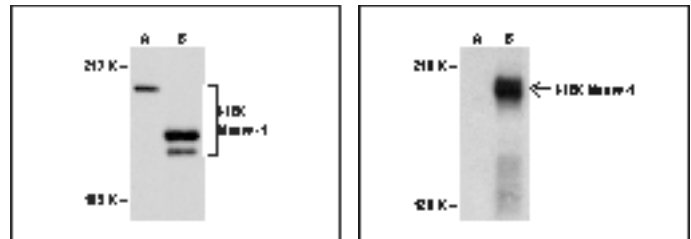
Molecular Weight of cleaved MEK kinase-1: 80 kDa.

Positive Controls: A-431 whole cell lysate: sc-2201, mouse liver extract: sc-2256 or MEK kinase-1 (m): 293T Lysate: sc-375230.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



Western blot analysis of MEK kinase-1 (P-19) antibody specificity in A-431 whole cell lysate (A) and mouse liver tissue extract (B).  
Western blot analysis of MEK kinase-1 (P-19) antibody specificity in A-431 whole cell lysate (A) and mouse liver tissue extract (B).

## STORAGE

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

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.

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Satisfaction  
Guaranteed

Try **MEK kinase-1 (F-11): sc-17820** or **MEK kinase-1 (1-9C-2A): sc-449**, our highly recommended monoclonal alternatives to MEK kinase-1 (P-19).