

MP1 (A-19): sc-8626

BACKGROUND

MP1 (MEK partner 1) functions as a scaffolding protein in the mitogen activated protein (MAP) kinase signaling pathway. Growth factor induced MAP kinase activation is selectively mediated by the extracellular signal-regulated kinase (ERK) cascade. This pathway is dependent on the phosphorylation of MEK-1 and its subsequent activation of ERK 1. MP1 binds to the proline-rich domain of MEK-1 and thereby potentiates the phosphorylation of MEK-1 by the activating MEK kinase B-Raf. MP1 is also able to enhance the kinase activity of MEK-1 and facilitate the phosphorylation of ERK 1. *In vivo* studies indicate that MP1 preferentially associates with MEK-1 and ERK 1, but not with MEK-2 or ERK 2, suggesting that MP1 and other scaffolding proteins contribute to the specificity of the kinase substrates within the MAPK pathways.

CHROMOSOMAL LOCATION

Genetic locus: LAMTOR3 (human) mapping to 4q23; Lamtor3 (mouse) mapping to 3 G3.

SOURCE

MP1 (A-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of MP1 of mouse 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-8626 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

MP1 (A-19) is recommended for detection of MP1 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).

MP1 (A-19) is also recommended for detection of MP1 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for MP1 siRNA (h): sc-40746, MP1 siRNA (m): sc-40747, MP1 shRNA Plasmid (h): sc-40746-SH, MP1 shRNA Plasmid (m): sc-40747-SH, MP1 shRNA (h) Lentiviral Particles: sc-40746-V and MP1 shRNA (m) Lentiviral Particles: sc-40747-V.

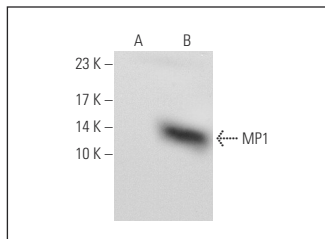
Molecular Weight of MP1: 14 kDa.

Positive Controls: 3T3-L1 cell lysate: sc-2243 or MP1 (m): 293T Lysate: sc-121727.

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



MP1 (A-19): sc-8626. Western blot analysis of MP1 expression in non-transfected: sc-117752 (A) and mouse MP1 transfected: sc-121727 (B) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

- Di Stefano, B., et al. 2014. C/EBP α poises B cells for rapid reprogramming into induced pluripotent stem cells. *Nature* 506: 235-239.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.



Try **MP1 (H-6): sc-376783** or **MP1 (B-12): sc-25345**, our highly recommended monoclonal alternatives to MP1 (A-19).