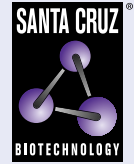


MEK-3/6 (B-1): sc-136982



The Power to Question

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 MKK-4) activates both p38 and JNK MAP kinases. MEK-5 appears to specifically phosphorylate ERK5, whereas MEK-6 phosphorylates p38 and p38b. MEK-7 (or MKK-7) phosphorylates and activates the JNK signal transduction pathway.

CHROMOSOMAL LOCATION

Genetic locus: MAP2K3 (human) mapping to 17q11.2, MAP2K6 (human) mapping to 17q24.3; Map2k3 (mouse) mapping to 11 B2, Map2k6 (mouse) mapping to 11 E2.

SOURCE

MEK-3/6 (B-1) is a mouse monoclonal antibody raised against amino acids 229-318 mapping at the C-terminus of MEK-3/6 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

MEK-3/6 (B-1) is available conjugated to agarose (sc-136982 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-136982 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-136982 PE), fluorescein (sc-136982 FITC), Alexa Fluor® 488 (sc-136982 AF488), Alexa Fluor® 546 (sc-136982 AF546), Alexa Fluor® 594 (sc-136982 AF594) or Alexa Fluor® 647 (sc-136982 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-136982 AF680) or Alexa Fluor® 790 (sc-136982 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

MEK-3/6 (B-1) is recommended for detection of MEK-3 and MEK-6 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for MEK-3/6 siRNA (h): sc-43924, MEK-3/6 shRNA Plasmid (h): sc-43924-SH and MEK-3/6 shRNA (h) Lentiviral Particles: sc-43924-V.

Molecular Weight of MEK-3: 40 kDa.

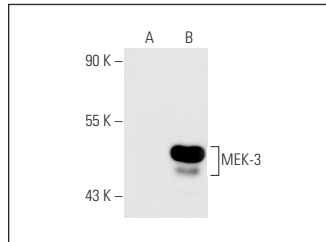
Molecular Weight of MEK-6: 37 kDa.

Positive Controls: MEK-3 (h): 293T Lysate: sc-114954, HeLa whole cell lysate: sc-2200 or NIH/3T3 whole cell lysate: sc-2210.

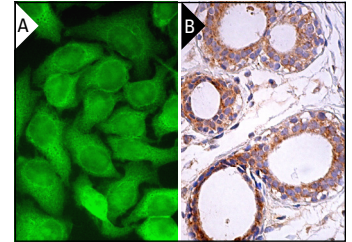
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



MEK-3/6 (B-1): sc-136982. Western blot analysis of MEK-3 expression in non-transfected: sc-117752 (A) and human MEK-3 transfected: sc-114954 (B) 293T whole cell lysates.



MEK-3/6 (B-1): sc-136982. Immunofluorescence staining of formalin-fixed HeLa cells showing nuclear and cytoplasmic localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human breast tissue showing cytoplasmic staining of glandular cells (B).

SELECT PRODUCT CITATIONS

- Jiang, Q., et al. 2013. ATF4 activation by the p38MAPK-eIF4E axis mediates apoptosis and autophagy induced by selenite in Jurkat cells. *FEBS Lett.* 587: 2420-2429.
- Ge, Z.R., et al. 2016. Cardioprotective effect of notoginsenoside R1 in a rabbit lung remote ischemic postconditioning model via activation of the TGF-β1/TAK1 signaling pathway. *Exp. Ther. Med.* 11: 2341-2348.
- Kim, Y.C., et al. 2019. RSU1-dependent control of PTEN expression is regulated via ATF2 and cJun. *J. Cell Commun. Signal.* 13: 331-341.
- Jiang, X., et al. 2024. Suppression of CGRP and TRPV1 expression in dorsal root ganglia of knee osteoarthritis rats by huojing decoction via TrkA/MKK3/6/p38 pathway. *J. Inflamm. Res.* 17: 5311-5326.

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 for detailed protocols and support products.