

MEK-7 (T-19): sc-7104

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: MAP2K7 (human) mapping to 19p13.2; Map2k7 (mouse) mapping to 8 A1.1.

SOURCE

MEK-7 (T-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of MEK-7 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.

MEK-7 (T-19) is available conjugated to agarose (sc-7104 AC), 500 µg/0.25 ml agarose in 1 ml, for IP.

Blocking peptide available for competition studies, sc-7104 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

MEK-7 (T-19) is recommended for detection of MEK-7 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), 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).

MEK-7 (T-19) is also recommended for detection of MEK-7 in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for MEK-7 siRNA (h): sc-35915, MEK-7 siRNA (m): sc-35916, MEK-7 shRNA Plasmid (h): sc-35915-SH, MEK-7 shRNA Plasmid (m): sc-35916-SH, MEK-7 shRNA (h) Lentiviral Particles: sc-35915-V and MEK-7 shRNA (m) Lentiviral Particles: sc-35916-V.

Molecular Weight of MEK-7: 47 kDa.

Positive Controls: A-431 whole cell lysate: sc-2201, C32 whole cell lysate: sc-2205 or NIH/3T3 whole cell lysate: sc-2210.

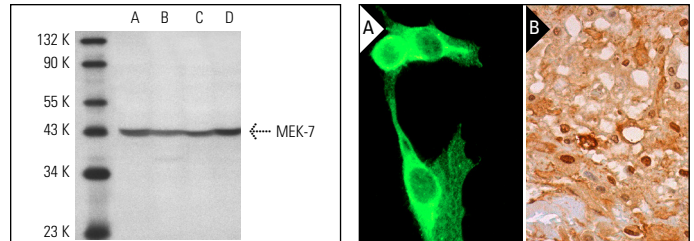
STORAGE

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.

DATA



MEK-7 (T-19): sc-7104. Western blot analysis of MEK-7 expression in NIH/3T3 (A), A-431 (B), A-375 (C) and C32 (D) whole cell lysates.

MEK-7 (T-19): sc-7104. Immunofluorescence staining of methanol-fixed NIH/3T3 cells showing cytoplasmic localization. Immunoperoxidase staining of formalin fixed, paraffin-embedded human placenta tissue showing cytoplasmic and nuclear staining of decidual cells.

SELECT PRODUCT CITATIONS

- Avdi, N.J., et al. 2001. TNF- α activation of the c-Jun N-terminal kinase pathway in human neutrophils. Integrin involvement in a pathway leading from cytoplasmic tyrosine kinases to apoptosis. *J. Biol. Chem.* 276: 2189-2199.
- Dashti, S.R., et al. 2001. MEK-7-dependent activation of p38 MAP kinase in keratinocytes. *J. Biol. Chem.* 276: 8059-8063.
- Balasubramanian, S., et al. 2002. Green tea polyphenol stimulates a Ras, MEKK1, MEK-3, and p38 cascade to increase activator protein 1 factor-dependent involucrin gene expression in normal human keratinocytes. *J. Biol. Chem.* 277: 1828-1836.
- Avdi, N.J., et al. 2002. A role for protein phosphatase-2A in p38 mitogen-activated protein kinase-mediated regulation of the c-Jun NH₂-terminal kinase pathway in human neutrophils. *J. Biol. Chem.* 277: 40687-40696.
- Kishimoto, H., et al. 2003. Different properties of SEK1 and MKK-7 in dual phosphorylation of stress-induced activated protein kinase SAPK/JNK in embryonic stem cells. *J. Biol. Chem.* 278: 16595-16601.
- Bruna, A., et al. 2003. Glucocorticoid receptor-JNK interaction mediates inhibition of the JNK pathway by glucocorticoids. *EMBO J.* 22: 6035-6044.
- Nishitai, G., et al. 2004. Stress induces mitochondria-mediated apoptosis independent of SAPK/JNK activation in embryonic stem cells. *J. Biol. Chem.* 279: 1621-1626.
- Dermott, J.M., et al. 2004. Differential regulation of Jun N-terminal kinase and p38 MAP kinase by G α_{12} . *Oncogene* 23: 226-232.


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Try **MEK-7 (E-7): sc-25288** or **MEK-7 (40): sc-136337**, our highly recommended monoclonal alternatives to MEK-7 (T-19).