SANTA CRUZ BIOTECHNOLOGY, INC.

# MEK-2 (N-20): sc-524

SANTA CRUZ BIOTECHNOLOGY

*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: MAP2K2 (human) mapping to 19p13.3; Map2k2 (mouse) mapping to 10 C1.

## SOURCE

MEK-2 (N-20) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping at the N-terminus of MEK-2 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.

MEK-2 (N-20) is available conjugated to agarose (sc-524 AC), 500 µg/0.25 ml agarose in 1 ml, for IP.

Blocking peptide available for competition studies, sc-524 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

MEK-2 (N-20) is recommended for detection of MEK-2 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-2 (N-20) is also recommended for detection of MEK-2 in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for MEK-2 siRNA (h): sc-35905, MEK-2 siRNA (m): sc-35906, MEK-2 shRNA Plasmid (h): sc-35905-SH, MEK-2 shRNA Plasmid (m): sc-35906-SH, MEK-2 shRNA (h) Lentiviral Particles: sc-35905-V and MEK-2 shRNA (m) Lentiviral Particles: sc-35906-V.

Molecular Weight of MEK-2: 47 kDa.

Positive Controls: NIH/3T3 whole cell lysate: sc-2210, K-562 whole cell lysate: sc-2203 or Jurkat whole cell lysate: sc-2204.

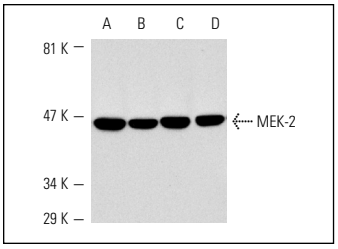
## STORAGE

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

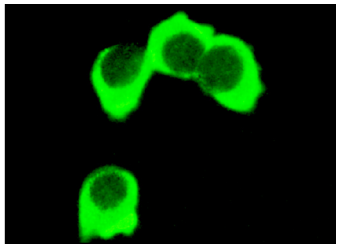
## RESEARCH USE

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

## DATA




MEK-2 (N-20): sc-524. Western blot analysis of MEK-2 expression in Jurkat (**A**), K-562 (**B**), NIH/3T3 (**C**) and WEHI-231 (**D**) whole cell lysates.



MEK-2 (N-20): sc-524. Immunofluorescence staining of methanol-fixed K-562 cells showing cytoplasmic and membrane staining.

## SELECT PRODUCT CITATIONS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3. Xu, L., et al. 2008. Anthrax lethal toxin increases superoxide production in murine neutrophils via differential effects on MAPK signaling pathways. J. Immunol. 180: 4139-4147.
4. Koçer, S.S., et al. 2008. Effects of anthrax lethal toxin on human primary keratinocytes. J. Appl. Microbiol. 105: 1756-1767.
5. Rolando, M., et al. 2010. Transcriptome dysregulation by anthrax lethal toxin plays a key role in induction of human endothelial cell cytotoxicity. Cell. Microbiol. 12: 891-905.
6. Gailhouste, L., et al. 2010. RNAi-mediated MEK1 knock-down prevents ERK1/2 activation and abolishes human hepatocarcinoma growth *in vitro* and *in vivo*. Int. J. Cancer 126: 1367-1377.
7. Burga, L.N., et al. 2011. Loss of BRCA1 leads to an increase in epidermal growth factor receptor expression in mammary epithelial cells, and epidermal growth factor receptor inhibition prevents estrogen receptor-negative cancers in BRCA1-mutant mice. Breast Cancer Res. 13: R30.
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MONOS Satisfaction Guaranteed

Try **MEK-2 (A-1): sc-13159** or **MEK-2 (96): sc-136261**, our highly recommended monoclonal alternatives to MEK-2 (N-20). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **MEK-2 (A-1): sc-13159**.