

# MOK (D-12): sc-103624

## BACKGROUND

The phosphorylation and dephosphorylation of proteins on serine and threonine residues is an essential means of regulating a broad range of cellular functions in eukaryotes, including cell division, homeostasis and apoptosis. A group of proteins that are intimately involved in this process are the serine/threonine (Ser/Thr) protein kinases. MOK (MAPK/MAK/MRK overlapping kinase), also known as RAGE (renal tumor antigen), is a 419 amino acid protein that localizes to the cytoplasm and contains one protein kinase domain. Existing as a member of the Ser/Thr protein kinase family, MOK is expressed in pancreas, lung, brain and kidney where it catalyzes the ATP-dependent phosphorylation of a variety of exogenous substrates. MOK exists as multiple alternatively spliced isoforms and is subject to autophosphorylation, an event which may increase its enzymatic activity.

## REFERENCES

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2. Miyata, Y., et al. 1999. Molecular cloning and characterization of a novel member of the MAP kinase superfamily. *Genes Cells* 4: 299-309.
3. Online Mendelian Inheritance in Man, OMIM™. 2001. Johns Hopkins University, Baltimore, MD. MIM Number: 605762. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
4. Eichmüller, S., et al. 2002. mRNA expression of tumor-associated antigens in melanoma tissues and cell lines. *Exp. Dermatol.* 11: 292-301.
5. Yan, M., et al. 2003. Renal cell carcinoma antigen is expressed by yolk sac tumors and yolk sac elements of embryonal carcinomas. *Appl. Immunohistochem. Mol. Morphol.* 11: 113-115.
6. Uesaka, T. and Kageyama, N. 2004. Cdx2 homeodomain protein regulates the expression of MOK, a member of the mitogen-activated protein kinase superfamily, in the intestinal epithelial cells. *FEBS Lett.* 573: 147-154.
7. Oehlrich, N., et al. 2005. Generation of RAGE-1 and MAGE-9 peptide-specific cytotoxic T-lymphocyte lines for transfer in patients with renal cell carcinoma. *Int. J. Cancer* 117: 256-264.
8. Kalousová, M., et al. 2009. RAGE polymorphisms, renal function and histological finding at 12 months after renal transplantation. *Clin. Biochem.* 42: 347-352.

## CHROMOSOMAL LOCATION

Genetic locus: MOK (human) mapping to 14q32.31; Stk30 (mouse) mapping to 12 F1.

## SOURCE

MOK (D-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of MOK of human origin.

## RESEARCH USE

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

## 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-103624 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

MOK (D-12) is recommended for detection of MOK 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); may cross-react with MOK-1 and MOK-2 but not MOK-3 or MOK-4.

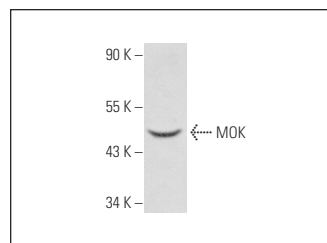
MOK (D-12) is also recommended for detection of MOK in additional species, including equine.

Suitable for use as control antibody for MOK siRNA (h): sc-75810, MOK siRNA (m): sc-75811, MOK shRNA Plasmid (h): sc-75810-SH, MOK shRNA Plasmid (m): sc-75811-SH, MOK shRNA (h) Lentiviral Particles: sc-75810-V and MOK shRNA (m) Lentiviral Particles: sc-75811-V.

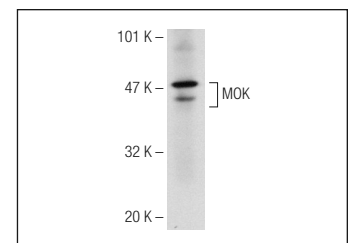
Molecular Weight of MOK: 48 kDa.

Positive Controls: mouse heart extract: sc-2254 or Raji whole cell lysate: sc-364236.

## DATA



MOK (D-12): sc-103624. Western blot analysis of MOK expression in Raji whole cell lysate.



MOK (D-12): sc-103624. Western blot analysis of MOK expression in mouse heart tissue extract.

## STORAGE

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

## PROTOCOLS

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