

MAPKAPK-2 (H-66): sc-7871

BACKGROUND

The MAPKAP kinases (for MAP kinase activated protein kinases) are a group of MAP kinase substrates which are themselves kinases. In response to activation, the MAP kinases phosphorylate downstream components on a consensus Pro-X-Ser/Thr-Pro motif. Several kinases that contain this motif have been identified and serve as substrates for the ERK and p38 MAP kinases. These include the serine/threonine kinases Rsk-1 (also designated MAPKAP kinase-1), Rsk-2 and Rsk-3, which are phosphorylated by ERK 1 and ERK 2. Similarly, p38 phosphorylates and activates the serine/threonine kinases MAPKAP kinase-2 and MAPKAP kinase-3 (also designated 3pK). The serine/threonine kinases Mnk1 and Mnk2 are substrates for both ERK and p38 MAP kinases.

REFERENCES

1. Sturgill, T.W., et al. 1988. Insulin-stimulated MAP2 kinase phosphorylates and activates ribosomal protein S6 kinase II. *Nature* 334: 715-718.
2. Stokoe, D., et al. 1992. MAPKAP kinase-2: a novel protein kinase activated by mitogen-activated protein kinase. *EMBO J.* 11: 3985-3994.
3. Davis, R.J. 1993. The mitogen-activated protein kinase signal transduction pathway. *J. Biol. Chem.* 268: 14553-14556.

CHROMOSOMAL LOCATION

Genetic locus: MAPKAPK2 (human) mapping to 1q32.1; Mapkapk2 (mouse) mapping to 1 E4.

SOURCE

MAPKAPK-2 (H-66) is a rabbit polyclonal antibody raised against amino acids 2-67 mapping at the N-terminus of MAPKAPK-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.

APPLICATIONS

MAPKAPK-2 (H-66) is recommended for detection of MAPKAPK-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), 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 MAPKAPK-2 siRNA (h): sc-35855, MAPKAPK-2 siRNA (m): sc-35856, MAPKAPK-2 shRNA Plasmid (h): sc-35855-SH, MAPKAPK-2 shRNA Plasmid (m): sc-35856-SH, MAPKAPK-2 shRNA (h) Lentiviral Particles: sc-35855-V and MAPKAPK-2 shRNA (m) Lentiviral Particles: sc-35856-V.

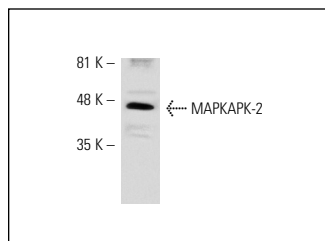
Molecular Weight of MAPKAPK-2: 45 kDa.

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

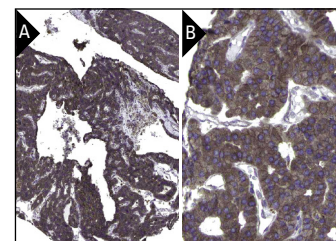
STORAGE

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

DATA



MAPKAPK-2 (H-66): sc-7871. Western blot analysis of MAPKAPK-2 expression in NIH/3T3 whole cell lysate.



MAPKAPK-2 (H-66): sc-7871. Immunoperoxidase staining of formalin fixed, paraffin-embedded human parathyroid gland tissue showing cytoplasmic staining of glandular cells at low (A) and high (B) magnification. Kindly provided by The Swedish Human Protein Atlas (HPA) program.

SELECT PRODUCT CITATIONS

1. Mainiero, F., et al. 2000. Rac 1/p38 MAPK signaling pathway controls β -1 integrin-induced Interleukin-8 production in human natural killer cells. *Immunity* 12: 7-16.
2. Mayo, L.D., et al. 2001. Vascular endothelial cell growth factor activates CRE-binding protein by signaling through the KDR receptor tyrosine kinase. *J. Biol. Chem.* 276: 25184-25189.
3. Powell, D.W., et al. 2003. Proteomic identification of 14-3-3 ζ as a mitogen-activated protein kinase-activated protein kinase 2 substrate: role in dimer formation and ligand binding. *Mol. Cell. Biol.* 23: 5376-5387.
4. Frasca, D., et al. 2005. RNA stability of the E2A-encoded transcription factor E47 is lower in splenic activated B cells from aged mice. *J. Immunol.* 175: 6633-6644.
5. Montoya-Durango, D.E., et al. 2009. Epigenetic control of mammalian LINE-1 retrotransposon by retinoblastoma proteins. *Mutat. Res.* 665: 20-28.
6. Sperone, A., et al. 2011. The transcription factor Erg inhibits vascular inflammation by repressing NF κ B activation and proinflammatory gene expression in endothelial cells. *Arterioscler. Thromb. Vasc. Biol.* 31: 142-150.

RESEARCH USE

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



Try **MAPKAPK-2 (A-11): sc-393609** or **MAPKAPK-2 (35-1): sc-100393**, our highly recommended monoclonal alternatives to MAPKAPK-2 (H-66).