

MAPKAP-1 (K-20): sc-48588

BACKGROUND

Mitogen-activated protein kinase associated protein 1 (MAPKAP-1) is a protein that localizes in the nucleus and is involved in several different signal transduction pathways. MAPKAP-1 contains one stress-activated map kinase interacting 1 domain (Pfam), a 2nd peroximal domain, and an ER membrane domain (Psort2). MAPKAP-1 binds to and inhibits c-Jun N-terminal kinase (JNK), and may act as a scaffold molecule in the regulation of JNK signaling. Transcription of the MAPKAP-1 gene is activated any time the organism is wounded, and stress to the cell causes the MAPKAP-1 protein to be phosphorylated. Cells lacking this protein may display sterility, multiple stress sensitivity and a cell-cycle delay.

REFERENCES

- Lee, D.E., et al. 2004. Pathogen resistance of transgenic rice plant protein kinase 1, MK1, from *Capsicum annuum*. *Mol. Cells* 17: 81-85.
- Schroder, W., et al. 2004. Alternative polyadenylation and splicing of mRNAs transcribed from the human Sin1 gene. *Gene* 339: 17-23.
- Schroder, W., et al. 2005. The human stress-activated protein kinase-interacting 1 gene encodes JNK-binding proteins. *Cell. Signal.* 17: 761-767.
- Wang, S.Z., et al. 2005. The evolution of the Sin1 gene product, a little known protein implicated in stress responses and type I interferon signaling in vertebrates. *BMC Evol. Biol.* 5: 13.
- Gaestel, M. 2006. MAPKAP kinases—MKs—two's company, three's a crowd. *Nat. Rev. Mol. Cell Biol.* 7: 120-130.
- Cordes, T., et al. 2006. Modulation of MAPK ERK1 and ERK2 in VDR-positive and -negative breast cancer cell lines. *Anticancer Res.* 26: 2749-2753.
- Culbert, A.A., et al. 2006. MAPK-activated protein kinase 2 deficiency in microglia inhibits pro-inflammatory mediator release and resultant neurotoxicity. Relevance to neuroinflammation in a transgenic mouse model of Alzheimer disease. *J. Biol. Chem.* 281: 23658-23667.

CHROMOSOMAL LOCATION

Genetic locus: MAPKAP1 (human) mapping to 9q33.3; Mapkap1 (mouse) mapping to 2 B.

SOURCE

MAPKAP-1 (K-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of MAPKAP-1 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.

Blocking peptide available for competition studies, sc-48588 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

MAPKAP-1 (K-20) is recommended for detection of MAPKAP-1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

MAPKAP-1 (K-20) is also recommended for detection of MAPKAP-1 in additional species, including equine, canine, bovine, porcine and avian.

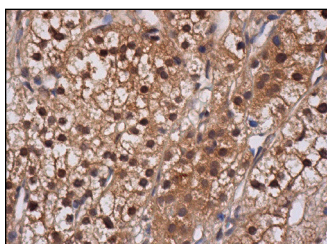
Suitable for use as control antibody for MAPKAP-1 siRNA (h): sc-60984, MAPKAP-1 siRNA (m): sc-60985, MAPKAP-1 shRNA Plasmid (h): sc-60984-SH, MAPKAP-1 shRNA Plasmid (m): sc-60985-SH, MAPKAP-1 shRNA (h) Lentiviral Particles: sc-60984-V and MAPKAP-1 shRNA (m) Lentiviral Particles: sc-60985-V.

Molecular Weight of MAPKAP-1: 59 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 3) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

DATA



MAPKAP-1 (K-20): sc-48588. Immunoperoxidase staining of formalin fixed, paraffin-embedded human adrenal gland tissue showing cytoplasmic and nuclear staining of glandular cells.

RESEARCH USE

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

MONOS
Satisfaction
Guaranteed

Try **MAPKAP-1 (F-3): sc-393166**, our highly recommended monoclonal alternative to MAPKAP-1 (K-20).