SANTA CRUZ BIOTECHNOLOGY, INC.

MAPKAP-1 (F-3): sc-393166

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.

CHROMOSOMAL LOCATION

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

SOURCE

MAPKAP-1 (F-3) is a mouse monoclonal antibody raised against amino acids 151-450 mapping within an internal region of MAPKAP-1 of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

MAPKAP-1 (F-3) is available conjugated to agarose (sc-393166 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-393166 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-393166 PE), fluorescein (sc-393166 FITC), Alexa Fluor® 488 (sc-393166 AF488), Alexa Fluor® 546 (sc-393166 AF546), Alexa Fluor® 594 (sc-393166 AF594) or Alexa Fluor® 647 (sc-393166 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-393166 AF680) or Alexa Fluor® 790 (sc-393166 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

MAPKAP-1 (F-3) is recommended for detection of MAPKAP-1 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

MAPKAP-1 (F-3) is also recommended for detection of MAPKAP-1 in additional species, including equine and bovine.

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.

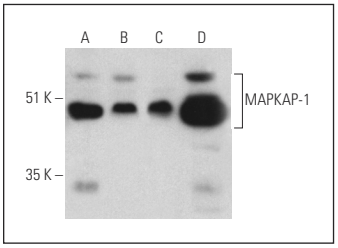
Molecular Weight of MAPKAP-1: 59 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227, U-87 MG cell lysate: sc-2411 or human heart extract: sc-363763.

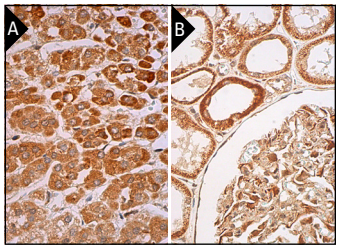
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



MAPKAP-1 (F-3) HRP: sc-393166 HRP. Direct western blot analysis of MAPKAP-1 expression in Hep G2 (**A**), U-87 MG (**B**) and Sol8 (**C**) whole cell lysates and human heart tissue extract (**D**).



MAPKAP-1 (F-3): sc-393166. Immunoperoxidase staining of formalin fixed, paraffin-embedded human adrenal gland tissue showing cytoplasmic and nuclear staining of glandular cells (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded human kidney tissue showing cytoplasmic and nuclear staining of cells in gomeruli and cells in tubules (**B**).

SELECT PRODUCT CITATIONS

1. Kowalsky, A.H., et al. 2020. The GATOR2-mTORC2 axis mediates Sestrin2-induced Akt Ser/Thr kinase activation. J. Biol. Chem. 295: 1769-1780.
2. Yang, R., et al. 2021. High expression of PAMR1 predicts favorable prognosis and inhibits proliferation, invasion, and migration in cervical cancer. Front. Oncol. 11: 742017.
3. Chen, M., et al. 2022. A p53-phosphoinositide signalosome regulates nuclear AKT activation. Nat. Cell Biol. 24: 1099-1113.

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.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.