SANTA CRUZ BIOTECHNOLOGY, INC.

MAPKBP-1 (D-15): sc-164964

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The Power to Question

BACKGROUND

MAP kinases play a significant role in many biological processes, including cell adhesion and spreading, cell differentiation and apoptosis. MAPKBP-1 (mitogen-activated protein kinase binding protein 1), also known as JNKBP-1, is a 1,514 amino acid protein that contains 12 WD repeats. Induced by TRAF2 (TNF receptor-associated factor 2) and Tak1 (TGFβ-activated kinase 1), MAPKBP-1 is thought to act an adaptor protein for NFκB (nuclear factor κ-B) activation. MAPKBP-1 interacts with JNK3 and may promote TRAF2 polyubiquitination. MAPKBP-1 exists as six alternatively spliced variants and is encoded by a gene located on human chromosome 15. Human chromosome 15 houses over 700 genes and comprises nearly 3% of the human genome. Angelman syndrome, Prader-Willi syndrome, Tay-Sachs disease and Marfan syndrome are all associated with defects in chromosome 15-localized genes.

REFERENCES

1. Koyano, S., et al. 1999. A novel Jun N-terminal kinase (JNK)-binding protein that enhances the activation of JNK by MEK kinase 1 and TGFβ-activated kinase 1. FEBS Lett. 457: 385-388.
2. Cox, N.J., et al. 1999. Loci on chromosomes 2 (NIDDM1) and 15 interact to increase susceptibility to diabetes in Mexican Americans. Nat. Genet. 21: 213-215.
3. Khandoudi, N., et al. 2002. Rosiglitazone, a peroxisome proliferator-activated receptor-γ, inhibits the Jun NH_2-terminal kinase/activating protein 1 pathway and protects the heart from ischemia/reperfusion injury. Diabetes 51: 1507-1514.
4. Meng, W., et al. 2002. Structure of mitogen-activated protein kinase-activated protein (MAPKAP) kinase 2 suggests a bifunctional switch that couples kinase activation with nuclear export. J. Biol. Chem. 277: 37401-37405.
5. Seternes, O.M., et al. 2002. Both binding and activation of p38 mitogen-activated protein kinase (MAPK) play essential roles in regulation of the nucleocytoplasmic distribution of MAPK-activated protein kinase 5 by cellular stress. Mol. Cell. Biol. 22: 6931-6945.

CHROMOSOMAL LOCATION

Genetic locus: MAPKBP1 (human) mapping to 15q15.1; Mapkbp1 (mouse) mapping to 2 E5.

SOURCE

MAPKBP-1 (D-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of MAPKBP-1 of human origin.

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 or our catalog for detailed protocols and support products.

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-164964 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

MAPKBP-1 (D-15) is recommended for detection of MAPKBP-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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

MAPKBP-1 (D-15) is also recommended for detection of MAPKBP-1 in additional species, including equine and canine.

Suitable for use as control antibody for MAPKBP-1 siRNA (h): sc-90268, MAPKBP-1 siRNA (m): sc-149261, MAPKBP-1 shRNA Plasmid (h): sc-90268-SH, MAPKBP-1 shRNA Plasmid (m): sc-149261-SH, MAPKBP-1 shRNA (h) Lentiviral Particles: sc-90268-V and MAPKBP-1 shRNA (m) Lentiviral Particles: sc-149261-V.

Molecular Weight of MAPKBP-1 isoforms: 164/134/150/109/24/163 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.

RESEARCH USE

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