

# MAPKBP-1 (T-14): sc-164966

## 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 (TGF $\beta$ -activated kinase 1), MAPKBP-1 is thought to act an adaptor protein for NF $\kappa$ B (nuclear factor  $\kappa$ -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

- 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 TGF $\beta$ -activated kinase 1. *FEBS Lett.* 457: 385-388.
- 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.
- Khandoudi, N., et al. 2002. Rosiglitazone, a peroxisome proliferator-activated receptor- $\gamma$ , inhibits the Jun NH<sub>2</sub>-terminal kinase/activating protein 1 pathway and protects the heart from ischemia/reperfusion injury. *Diabetes* 51: 1507-1514.
- 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.

## CHROMOSOMAL LOCATION

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

## SOURCE

MAPKBP-1 (T-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of MAPKBP-1 of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-164966 P, (100  $\mu$ g 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

MAPKBP-1 (T-14) 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), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g 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).

MAPKBP-1 (T-14) is also recommended for detection of MAPKBP-1 in additional species, including equine, canine, bovine and porcine.

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.

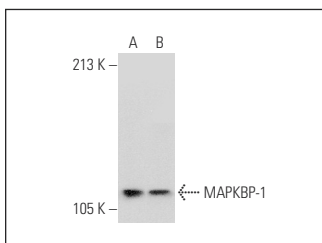
Molecular Weight of MAPKBP-1 isoforms: 164/134/150/109/24/163 kDa.

Positive Controls: mouse testis extract: sc-2405 or F9 cell lysate: sc-2245.

## 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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

## DATA



MAPKBP-1 (T-14): sc-164966. Western blot analysis of MAPKBP-1 expression in mouse testis tissue extract (A) and F9 whole cell lysate (B).

## RESEARCH USE

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



Try **MAPKBP-1 (B-4): sc-514754**, our highly recommended monoclonal alternative to MAPKBP-1 (T-14).