SANTA CRUZ BIOTECHNOLOGY, INC.

# MAPK15 (L-14): sc-86723

SANTA CRUZ BIOTECHNOLOGY

*The Power to Question*

## BACKGROUND

MAPK15 (mitogen-activated protein kinase 15, ERK 8) is a 544 amino acid protein that belongs to the CMGC Ser/Thr protein kinase family (MAP kinase subfamily). MAP kinases play a significant role in many biological processes, including cell adhesion and spreading, cell differentiation and apoptosis. MAPK15 functions as a catalytic kinase using ATP to produce ADP and a phosphoprotein. A TXY motif, containing one threonine and one tyrosine residue, activates the MAP kinases upon phosphorylation. MAPK15 is a ubiquitously expressed protein with highest expression found in lung and kidney.

## REFERENCES


1. Kinet, S., et al. 2002. gp120-mediated induction of the MAPK cascade is dependent on the activation state of CD4+ lymphocytes. Blood 100: 2546-2553.
2. Abe, M.K., et al. 2002. ERK 8, a new member of the mitogen-activated protein kinase family. J. Biol. Chem. 277: 16733-16743.
3. Bogoyevitch, M.A., et al. 2004. Counting on mitogen-activated protein kinases—ERKs 3, 4, 5, 6, 7 and 8. Cell. Signal. 16: 1345-1354.
4. Suzuki, Y., et al. 2004. Sequence comparison of human and mouse genes reveals a homologous block structure in the promoter regions. Genome Res. 14: 1711-1718.
5. Ellis, J., et al. 2004. A novel ERK-like, CRK-like protein kinase that modulates growth in *Trypanosoma brucei* via an autoregulatory C-terminal extension. Mol. Microbiol. 53: 1487-1499.
6. Klevernic, I.V., et al. 2006. Characterization of the reversible phosphorylation and activation of ERK 8. Biochem. J. 394: 365-373.
7. Iavarone, C., et al. 2006. Activation of the ERK 8 mitogen-activated protein (MAP) kinase by Ret/PTC3, a constitutively active form of the Ret proto-oncogene. J. Biol. Chem. 281: 10567-10576.


## CHROMOSOMAL LOCATION

Genetic locus: MAPK15 (human) mapping to 8q24.3; Mapk15 (mouse) mapping to 15 D3.

## SOURCE

MAPK15 (L-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of MAPK15 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-86723 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

MAPK15 (L-14) is recommended for detection of MAPK15 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

MAPK15 (L-14) is also recommended for detection of MAPK15 in additional species, including canine and bovine.

Suitable for use as control antibody for MAPK15 siRNA (h): sc-77462, MAPK15 siRNA (m): sc-149259, MAPK15 shRNA Plasmid (h): sc-77462-SH, MAPK15 shRNA Plasmid (m): sc-149259-SH, MAPK15 shRNA (h) Lentiviral Particles: sc-77462-V and MAPK15 shRNA (m) Lentiviral Particles: sc-149259-V.

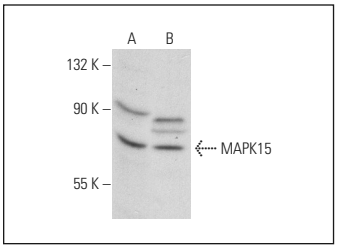
Molecular Weight of MAPK15: 60 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200 or NIH/3T3 whole cell lysate: sc-2210.

## 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




MAPK15 (L-14): sc-86723. Western blot analysis of MAPK15 expression in HeLa (**A**) and NIH/3T3 (**B**) whole cell lysates.

## RESEARCH USE

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

## PROTOCOLS

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