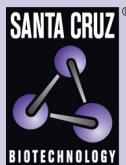


# MAPK15 (168CT10.6.6): sc-517342



## BACKGROUND

MAPK15 (mitogen-activated protein kinase 15, ERK8) 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

- Kinet, S., Bernard, F., Mongellaz, C., Perreau, M., Goldman, F.D. and Taylor, N. 2002. gp120-mediated induction of the MAPK cascade is dependent on the activation state of CD4+ lymphocytes. *Blood* 100: 2546-2553.
- Abe, M.K., Saelzler, M.P., Espinosa, R., Kahle, K.T., Hershenson, M.B., Le Beau, M.M. and Rosner, M.R. 2002. ERK8, a new member of the mitogen-activated protein kinase family. *J. Biol. Chem.* 277: 16733-16743.
- Bogoyevitch, M.A. and Court, N.W. 2004. Counting on mitogen-activated protein kinases—ERKs 3, 4, 5, 6, 7 and 8. *Cell. Signal.* 16: 1345-1354.
- Suzuki, Y., Yamashita, R., Shirota, M., Sakakibara, Y., Chiba, J., Mizushima-Sugano, J., Nakai, K. and Sugano, S. 2004. Sequence comparison of human and mouse genes reveals a homologous block structure in the promoter regions. *Genome Res.* 14: 1711-1718.
- Ellis, J., Sarkar, M., Hendriks, E. and Matthews, K. 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.
- Klevernic, I.V., Stafford, M.J., Morrice, N., Peggie, M., Morton, S. and Cohen, P. 2006. Characterization of the reversible phosphorylation and activation of ERK8. *Biochem. J.* 394: 365-373.
- Iavarone, C., Acunzo, M., Carloni, F., Catania, A., Melillo, R.M., Carloni, S.M., Santoro, M. and Chiariello, M. 2006. Activation of the Erk8 mitogen-activated protein (MAP) kinase by RET/PTC3, a constitutively active form of the RET proto-oncogene. *J. Biol. Chem.* 281: 10567-10576.
- Saelzler, M.P., Spackman, C.C., Liu, Y., Martinez, L.C., Harris, J.P. and Abe, M.K. 2006. ERK8 down-regulates transactivation of the glucocorticoid receptor through Hic-5. *J. Biol. Chem.* 281: 16821-16832.
- Lacey, M.R., Brumlik, M.J., Yenni, R.E., Burow, M.E. and Curiel, T.J. 2007. Toxoplasma gondii expresses two mitogen-activated protein kinase genes that represent distinct protozoan subfamilies. *J. Mol. Evol.* 64: 4-14.

## CHROMOSOMAL LOCATION

Genetic locus: MAPK15 (human) mapping to 8q24.3.

## SOURCE

MAPK15 (168CT10.6.6) is a mouse monoclonal antibody raised against a recombinant protein corresponding to MAPK15 of human origin.

## PRODUCT

Each vial contains 100 µg IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

MAPK15 (168CT10.6.6) is recommended for detection of MAPK15 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

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

Molecular Weight of MAPK15: 60 kDa.

## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:  
 1) Western Blotting: use m-IgG<sub>κ</sub> BP-HRP: sc-516102 or m-IgG<sub>κ</sub> BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use m-IgG<sub>κ</sub> BP-FITC: sc-516140 or m-IgG<sub>κ</sub> BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

## 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](http://www.scbt.com) for detailed protocols and support products.