

# MEKK 15 (G-20): sc-83155

## BACKGROUND

The phosphorylation and dephosphorylation of proteins on serine and threonine residues is an essential means of regulating a broad range of cellular functions in eukaryotes, including cell division, homeostasis and apoptosis. A group of proteins that are intimately involved in this process are the serine/threonine (Ser/Thr) protein kinases. MEKK 15 (MAPK/ERK kinase kinase 15), also known as MAP3K15 (mitogen-activated protein kinase kinase kinase 15), is a 1,313 amino acid protein that contains one protein kinase domain and belongs to the MAP3K subfamily of Ser/Thr protein kinases. Using magnesium as a cofactor, MEKK 15 functions to catalyze the ATP-dependent phosphorylation of target proteins and is thought to act as a component of specific protein kinase signaling cascades. The gene encoding MEKK 15 maps to human chromosome X, which contains nearly 153 million base pairs and houses over 1,000 genes.

## REFERENCES

1. Bairoch, A. and Claverie, J.M. 1988. Sequence patterns in protein kinases. *Nature* 331: 22.
2. Hanks, S.K., Quinn, A.M. and Hunter, T. 1988. The protein kinase family: conserved features and deduced phylogeny of the catalytic domains. *Science* 241: 42-52.
3. Hanks, S.K. and Quinn, A.M. 1991. Protein kinase catalytic domain sequence database: identification of conserved features of primary structure and classification of family members. *Meth. Enzymol.* 200: 38-62.
4. Hanes, J., von der Kammer, H., Klaudiny, J. and Scheit, K.H. 1994. Characterization by cDNA cloning of two new human protein kinases. Evidence by sequence comparison of a new family of mammalian protein kinases. *J. Mol. Biol.* 244: 665-672.
5. Dinulos, M.B., Bassi, M.T., Rugarli, E.I., Chapman, V., Ballabio, A. and Disteche, C.M. 1996. A new region of conservation is defined between human and mouse X chromosomes. *Genomics* 35: 244-247.

## CHROMOSOMAL LOCATION

Genetic locus: MAP3K15 (human) mapping to Xp22.12.

## SOURCE

MEKK 15 (G-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of MEKK 15 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-83155 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

MEKK 15 (G-20) is recommended for detection of MEKK 15 of 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).

Suitable for use as control antibody for MEKK 15 siRNA (h): sc-75771, MEKK 15 shRNA Plasmid (h): sc-75771-SH and MEKK 15 shRNA (h) Lentiviral Particles: sc-75771-V.

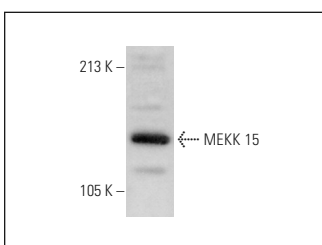
Molecular Weight of MEKK 15: 147 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200.

## 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



MEKK 15 (G-20): sc-83155. Western blot analysis of MEKK 15 expression in HeLa whole cell lysate.

## 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) or our catalog for detailed protocols and support products.

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Try **MEKK 15 (D-6): sc-514606**, our highly recommended monoclonal alternative to MEKK 15 (G-20).