

# SAPK4 (H-60): sc-20706

## BACKGROUND

Lipopolysaccharide has been shown to induce tyrosine phosphorylation of a unique protein, designated p38. p38 is a member of the MAP kinase family with features most closely resembling those of the *Saccharomyces cerevisiae* protein Hog1. p38 and Hog1 share a TGY phosphorylation sequence, whereas most other MAP kinase family proteins have a TEY sequence. A related protein, p38 $\beta$ , has been shown to phosphorylate ATF-2 at a 20-fold higher rate than p38, suggesting distinct substrate preferences. Stress activated protein kinase-4, or SAPK4, also designated p38 $\delta$ , is a related protein that is phosphorylated by MKK6 in response to cytokines and cellular stresses.

## REFERENCES

1. Brewster, J.L., et al. 1993. An osmosensing signal transduction pathway in yeast. *Science* 259: 1760-1763.
2. Han, J., et al. 1993. Endotoxin induces rapid protein tyrosine phosphorylation in 70Z/3 cells expressing CD14. *J. Biol. Chem.* 268: 25009-25014.
3. Nishida, E., et al. 1993. The MAP kinase cascade is essential for diverse signal transduction pathways. *Trends Biochem. Sci.* 18: 128-131.

## CHROMOSOMAL LOCATION

Genetic locus: MAPK13 (human) mapping to 6p21.31; Mapk13 (mouse) mapping to 17 A3.3.

## SOURCE

SAPK4 (H-60) is a rabbit polyclonal antibody raised against amino acids 306-365 of SAPK4 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.

## APPLICATIONS

SAPK4 (H-60) is recommended for detection of SAPK4 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).

SAPK4 (H-60) is also recommended for detection of SAPK4 in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for SAPK4 siRNA (h): sc-36456, SAPK4 siRNA (m): sc-36457, SAPK4 shRNA Plasmid (h): sc-36456-SH, SAPK4 shRNA Plasmid (m): sc-36457-SH, SAPK4 shRNA (h) Lentiviral Particles: sc-36456-V and SAPK4 shRNA (m) Lentiviral Particles: sc-36457-V.

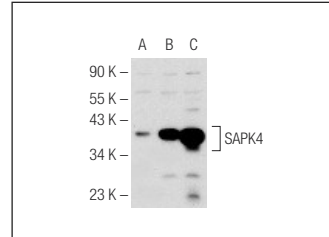
Molecular Weight of SAPK4 isoforms: 38/40/42 kDa.

Positive Controls: SAPK4 (m): 293T Lysate: sc-123351, A-431 whole cell lysate: sc-2201 or SAPK4 (h2): 293T Lysate: sc-173544.

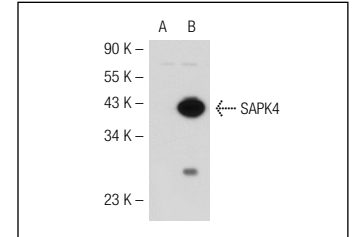
## STORAGE

Store at 4° C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

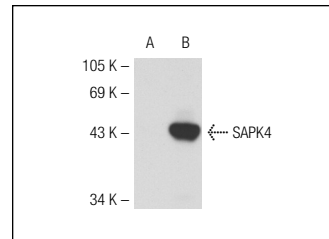
## DATA



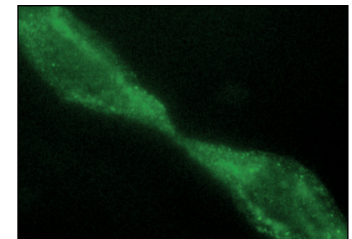
SAPK4 (H-60): sc-20706. Western blot analysis of SAPK4 expression in non-transfected 293T: sc-110760 (A), human SAPK4 transfected 293T: sc-173414 (B) and A-431 (C) whole cell lysates.



SAPK4 (H-60): sc-20706. Western blot analysis of SAPK4 expression in non-transfected: sc-117752 (A) and mouse SAPK4 transfected: sc-123351 (B) 293T whole cell lysates.



SAPK4 (H-60): sc-20706. Western blot analysis of SAPK4 expression in non-transfected: sc-117752 (A) and human SAPK4 transfected: sc-173544 (B) 293T whole cell lysates.



SAPK4 (H-60): sc-20706. Immunofluorescence staining of methanol-fixed A-431 cells showing cytoplasmic localization.

## 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 **SAPK4 (E-7): sc-46678** or **SAPK4 (E-3): sc-271292**, our highly recommended monoclonal alternatives to SAPK4 (H-60).