

SAPK4 (N-17): sc-7587

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 β , 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 δ , is a related protein that is phosphorylated by MKK6 in response to cytokines and cellular stresses.

CHROMOSOMAL LOCATION

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

SOURCE

SAPK4 (N-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of SAPK4 of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-7587 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

SAPK4 (N-17) 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 μ g per 100-500 μ 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 (N-17) is also recommended for detection of SAPK4 in additional species, including 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: A-431 whole cell lysate: sc-2201, SAPK4 (h): 293 Lysate: sc-173414 or SAPK4 (m): 293T Lysate: sc-123351.

STORAGE

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

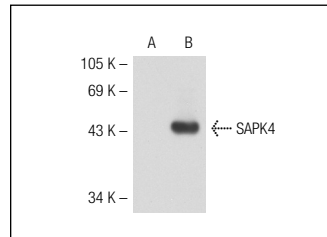
PROTOCOLS

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

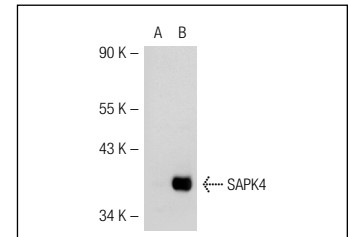
RECOMMENDED SECONDARY REAGENTS

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.

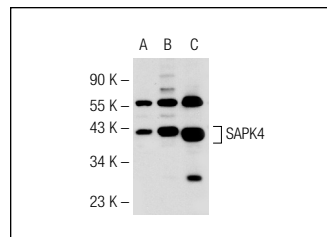
DATA



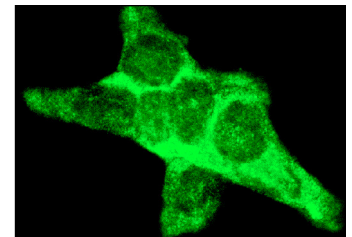
SAPK4 (N-17): sc-7587. Western blot analysis of SAPK4 expression in non-transfected: sc-117752 (A) and human SAPK4 transfected: sc-173544 (B) 293T whole cell lysates.



SAPK4 (N-17): sc-7587. Western blot analysis of SAPK4 expression in non-transfected: sc-117752 (A) and mouse SAPK4 transfected: sc-123351 (B) 293T whole cell lysates.



SAPK4 (N-17): sc-7587. Western blot analysis of SAPK4 expression in non-transfected 293: sc-110760 (A), human SAPK4 transfected 293: sc-173414 (B) and A-431 (C) whole cell lysates.



SAPK4 (N-17): sc-7587. Immunofluorescence staining of methanol-fixed A-431 cells showing cytoplasmic staining.

SELECT PRODUCT CITATIONS

1. Waetzig, G.H., et al. 2002. p38 mitogen-activated protein kinase is activated and linked to TNF α signaling in inflammatory bowel disease. *J. Immunol.* 168: 5342-5351.
2. Adhikary, G., et al. 2010. PKC- δ and - η , MEKK-1, MEK-6, MEK-3, and p38- δ are essential mediators of the response of normal human epidermal keratinocytes to differentiating agents. *J. Invest. Dermatol.* 130: 2017-2030.
3. Kanade, S.R. and Eckert, R.L. 2012. Protein arginine methyltransferase 5 (PRMT5) signaling suppresses protein kinase C δ - and p38 δ -dependent signaling and keratinocyte differentiation. *J. Biol. Chem.* 287: 7313-7323.

RESEARCH USE

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