

p38 γ (N-19): sc-6023

BACKGROUND

MAP (mitogen-activated protein) kinases play a significant role in many biological processes, including cell adhesion and spreading, cell differentiation and apoptosis. p38 α , p38 β and p38 γ , also known as MAPK14, MAPK11 and MAPK12, respectively, each contain one protein kinase domain and belong to the MAP kinase family. Expressed in different areas throughout the body with common expression patterns in heart, p38 proteins use magnesium as a cofactor to catalyze the ATP-dependent phosphorylation of target proteins. Via their catalytic activity, p38 α , p38 β and p38 γ are involved in a variety of events throughout the cell, including signal transduction pathways, cytokine production and cell proliferation and differentiation. The p38 proteins are subject to phosphorylation on Thr and Tyr residues, an event which is thought to activate the phosphorylated protein.

REFERENCES

1. Lee, J.C., et al. 1994. A protein kinase involved in the regulation of inflammatory cytokine biosynthesis. *Nature* 372: 739-746.
2. Han, J., et al. 1995. Molecular cloning of human p38 MAP kinase. *Biochim. Biophys. Acta* 1265: 224-227.

CHROMOSOMAL LOCATION

Genetic locus: MAPK12 (human) mapping to 22q13.33; Mapk12 (mouse) mapping to 15 E3.

SOURCE

p38 γ (N-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of p38 γ 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-6023 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

p38 γ (N-19) is recommended for detection of p38 γ 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).

Suitable for use as control antibody for p38 γ siRNA (h): sc-39013, p38 γ siRNA (m): sc-39014, p38 γ shRNA Plasmid (h): sc-39013-SH, p38 γ shRNA Plasmid (m): sc-39014-SH, p38 γ shRNA (h) Lentiviral Particles: sc-39013-V and p38 γ shRNA (m) Lentiviral Particles: sc-39014-V.

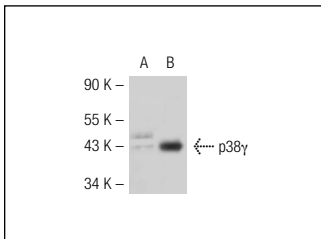
Molecular Weight of p38 γ : 38 kDa.

Positive Controls: p38 γ (m2): 293T Lysate: sc-122318 or Sol8 cell lysate: sc-2249.

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



p38 γ (N-19): sc-6023. Western blot analysis of p38 γ expression in non-transfected: sc-117752 (A) and mouse p38 γ transfected: sc-122318 (B) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

1. Simon, C., et al. 2001. The p38 SAPK pathway regulates the expression of the MMP-9 collagenase via AP-1-dependent promoter activation. *Exp. Cell Res.* 271: 344-355.
2. Behren, A., et al. 2005. The p38 SAPK pathway is required for Ha-Ras induced *in vitro* invasion of NIH/3T3 cells. *Exp. Cell Res.* 303: 321-330.

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 or our catalog for detailed protocols and support products.


 MONOS
Satisfation
Guaranteed

Try **p38 γ (E-4): sc-398546** or **p38 γ (E-11): sc-365487**, our highly recommended monoclonal alternatives to p38 γ (N-19).