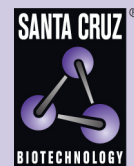


p38 $\alpha$ / $\beta$  (H-147): sc-7149

The Power to Question

## BACKGROUND

MAP (mitogen-activated protein) kinases play a significant role in many biological processes, including cell adhesion and spreading, cell differentiation and apoptosis. p38 $\alpha$ , p38 $\beta$  and p38 $\gamma$ , also known as MAPK14, MAPK11 and MAPK14, 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 $\alpha$ , p38 $\beta$  and p38 $\gamma$  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.

## CHROMOSOMAL LOCATION

Genetic locus: MAPK14 (human) mapping to 6p21.31, MAPK11 (human) mapping to 22q13.33; Mapk14 (mouse) mapping to 17 A3.3, Mapk11 (mouse) mapping to 15 E3.

## SOURCE

p38 $\alpha$ / $\beta$  (H-147) is a rabbit polyclonal antibody raised against amino acids 213-360 mapping at the C-terminus of p38 $\alpha$  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.

Available as agarose (sc-7149 AC) conjugate for immunoprecipitation, 500  $\mu$ g/0.25 ml agarose in 1 ml.

## APPLICATIONS

p38 $\alpha$ / $\beta$  (H-147) is recommended for detection of p38 $\alpha$  and p38 $\beta$  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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

p38 $\alpha$ / $\beta$  (H-147) is also recommended for detection of p38 $\alpha$  and p38 $\beta$  in additional species, including equine, canine, bovine, porcine and avian.

Molecular Weight of p38 $\alpha$ / $\beta$ : 38 kDa.

Positive Controls: NIH/3T3 whole cell lysate: sc-2210, KNRK whole cell lysate: sc-2214 or Jurkat whole cell lysate: sc-2204.

## RESEARCH USE

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

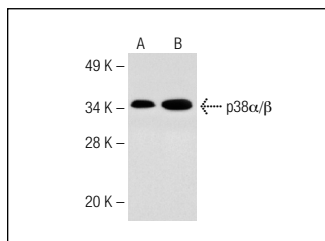
## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.

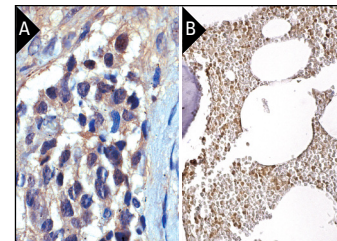
## STORAGE

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

## DATA



p38 $\alpha$ / $\beta$  (H-147): sc-7149. Western blot analysis of p38 $\alpha$ / $\beta$  expression in Jurkat (A) and KNRK (B) whole cell lysates.



p38 (H-147): sc-7149. Immunoperoxidase staining of formalin-fixed, paraffin-embedded pancreas tumor showing cytoplasmic and nuclear staining (A) and human bone marrow tissue showing cytoplasmic and nuclear staining of hematopoietic cells (B).

## SELECT PRODUCT CITATIONS

- Chen, G., et al. 2000. The p38 pathway provides negative feedback for Ras proliferative signaling. *J. Biol. Chem.* 275: 38973-38980.
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- Hu, C., et al. 2012. E Platinum, a newly synthesized platinum compound, induces autophagy via inhibiting phosphorylation of mTOR in gastric carcinoma BGC-823 cells. *Toxicol. Lett.* 210: 78-86.

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Try **p38 $\alpha$ / $\beta$  (A-12): sc-7972**, our highly recommended monoclonal alternative to p38 $\alpha$ / $\beta$  (H-147). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **p38 $\alpha$ / $\beta$  (A-12): sc-7972**.