**BACKGROUND**

MAP (mitogen-activated protein) kinases play a significant role in many biological processes, including cell adhesion and spreading, cell differentiation and apoptosis. p38α, p38β and p38γ, 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, p38α, p38β and p38γ 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**


**SOURCE**

p-p38 (E-1) is a mouse monoclonal antibody raised against Tyr 182 phosphorylated p38α of human origin.

**PRODUCT**

Each vial contains 200 µg IgG2a kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

p-p38 (E-1) is available conjugated to agarose (sc-166182 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-166182 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-166182 PE), fluorescein (sc-166182 FITC), Alexa Fluor® 488 (sc-166182 AF488), Alexa Fluor® 546 (sc-166182 AF546), Alexa Fluor® 594 (sc-166182 AF594) or Alexa Fluor® 647 (sc-166182 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-166182 AF680) or Alexa Fluor® 790 (sc-166182 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-166182 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

**APPLICATIONS**

- p-p38 (E-1) is recommended for detection for Tyr 182 phosphorylated p38α, p38β and p38γ of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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), 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).
- p-p38 (E-1) is also recommended for detection of correspondingly phosphorylated p38α, p38β and p38γ in additional species, including equine, canine, bovine, porcine and avian.
- Molecular Weight of p-p38: 38 kDa.

**STORAGE**

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

**DATA**

**SELECT PRODUCT CITATIONS**


**RESEARCH USE**

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

Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA.

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**SANTA CRUZ BIOTECHNOLOGY, INC.**

**p-p38 (E-1): sc-166182**

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