**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.

**SOURCE**

p-p38 (D-8) is a mouse monoclonal antibody raised against Tyr 182 phosphorylated p38α of human origin.

**PRODUCT**

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

p-p38 (D-8) is available conjugated to agarose (sc-7973 AC), 500 μg/0.25 ml agarose in 1 ml, for IP; and to fluorescein (sc-7973 FITC), 200 μg/ml, for IF, IHC(P) and FCM.

In addition, p-p38 (D-8) is available conjugated to TRITC (sc-7973 TRITC, 200 μg/ml), 100 μg/2 ml, for IF, IHC(P) and FCM.

Blocking peptide available for competition studies, sc-7973 P, (100 μg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

**APPLICATIONS**

p-p38 (D-8) is recommended for detection of Tyr 182 phosphorylated p38α, p38β and p38γ of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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 (D-8) 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.

Positive Controls: NIH/3T3 + UV cell lysate: sc-3804, NIH/3T3 + heat shock cell lysate: sc-2217 or A-431 whole cell lysate: sc-2201.

**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.

**DATA**

- [Western blot analysis of p38α expression in non-transfected 293T: sc-117752](image)
- [Western blot analysis of p38β expression in non-transfected 293T: sc-122319](image)
- [Western blot analysis of p38γ expression in non-transfected 293T: sc-102746](image)
- [Immunofluorescence staining of methanol-fixed NIH/3T3 cells showing nuclear localization of activated p38α](image)
- [Immunofluorescence staining of formalin-fixed, paraffin-embedded human liver carcinoma tissue showing nuclear localization of activated p38β](image)

**SELECT PRODUCT CITATIONS**


See p-p38 (E-1): sc-166182 for p-p38 antibody conjugates, including AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647.