

p-p38 (Tyr 182): sc-101759

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

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

SOURCE

p-p38 (Tyr 182) is a rabbit polyclonal antibody raised against a short amino acid sequence containing Tyr 182 phosphorylated p38 α of human origin.

PRODUCT

Each vial contains 100 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

p-p38 (Tyr 182) is recommended for detection of Tyr 182 phosphorylated p38 α , p38 β and p38 δ and correspondingly phosphorylated Tyr 185 p38 γ of mouse, rat, human and monkey 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 immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).

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 K-562 + UV cell lysate: sc-24724.

STORAGE

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

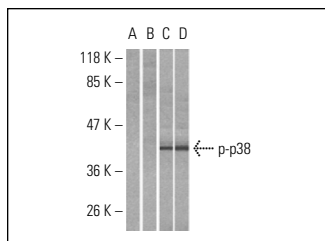
PROTOCOLS

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

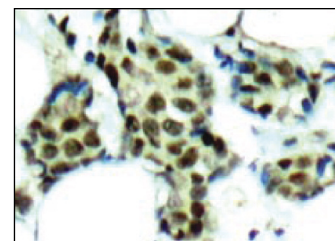
RESEARCH USE

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

DATA



p-p38 (Tyr 182): sc-101759. Western blot analysis of phosphorylated p38 expression in untreated NIH/3T3 (A), untreated K-562 (B), UV-treated NIH/3T3 (C) and UV-treated K-562 (D) whole cell lysates.



p-p38 (Tyr 182): sc-101759. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human breast carcinoma tissue showing cytoplasmic and nuclear staining.

SELECT PRODUCT CITATIONS

- Eiras, S., et al. 2006. Doxazosin induces activation of GADD153 and cleavage of focal adhesion kinase in cardiomyocytes en route to apoptosis. *Cardiovasc. Res.* 71: 118-128.
- Liu, H., et al. 2011. Apoptosis induced by a new flavonoid in human hepatoma HepG2 cells involves reactive oxygen species-mediated mitochondrial dysfunction and MAPK activation. *Eur. J. Pharmacol.* 654: 209-216.
- Duan, W.J., et al. 2011. Silibinin activated p53 and induced autophagic death in human fibrosarcoma HT1080 cells via reactive oxygen species-p38 and c-Jun N-terminal kinase pathways. *Biol. Pharm. Bull.* 34: 47-53.
- Boonyaratanakornkit, J., et al. 2011. The C proteins of human parainfluenza virus type 1 limit double-stranded RNA accumulation that would otherwise trigger activation of MDA5 and protein kinase R. *J. Virol.* 85: 1495-1506.
- Cohen, H., et al. 2011. The characteristic long-term upregulation of hippocampal NF κ B complex in PTSD-like behavioral stress response is normalized by high-dose corticosterone and pyrrolidine dithiocarbamate administered immediately after exposure. *Neuropsychopharmacology* 36: 2286-2302.
- Lin, K.T., et al. 2012. Bp5250 inhibits vascular endothelial growth factor-induced angiogenesis and HIF-1 α expression on endothelial cells. *Naunyn Schmiedeberg's Arch. Pharmacol.* 385: 39-49.
- Jang, J.Y., et al. 2012. Aqueous fraction from *Cuscuta japonica* seed suppresses melanin synthesis through inhibition of the p38 mitogen-activated protein kinase signaling pathway in B16F10 cells. *J. Ethnopharmacol.* 141: 338-344.



Try **p-p38 (E-1): sc-166182** or **p-p38 (D-8): sc-7973**, our highly recommended monoclonal alternatives to p-p38 (Tyr 182). Also, for AC, HRP, FITC, PE, Alexa Fluor[®] 488 and Alexa Fluor[®] 647 conjugates, see **p-p38 (E-1): sc-166182**.