SANTA CRUZ BIOTECHNOLOGY, INC.

# p38α (C-20): sc-535

SANTA CRUZ BIOTECHNOLOGY

*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. 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 phosphoryation 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; Mapk14 (mouse) mapping to 17 A3.3.

## SOURCE

p38α (C-20) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping at the C-terminus of p38α of mouse origin.

## PRODUCT

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

Blocking peptide available for competition studies, sc-535 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as agarose conjugate for immunoprecipitation, sc-535 AC, 500 µg/0.25 ml agarose in 1 ml.

## APPLICATIONS

p38α (C-20) is recommended for detection of p38α 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).

p38α (C-20) is also recommended for detection of p38α in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for p38α siRNA (h): sc-29433, p38α siRNA (m): sc-29434, p38α shRNA Plasmid (h): sc-29433-SH, p38α shRNA Plasmid (m): sc-29434-SH, p38α shRNA (h) Lentiviral Particles: sc-29433-V and p38α shRNA (m) Lentiviral Particles: sc-29434-V.

Molecular Weight of p38α: 38 kDa.

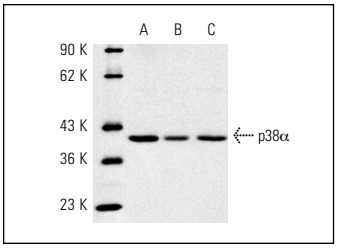
## STORAGE

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

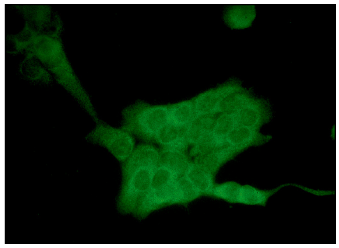
## RESEARCH USE

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

## DATA




p38α (C-20)-G: sc-535-G. Western blot analysis of p38α expression in Jurkat (**A**), A-431 (**B**) and MCF7 (**C**) whole cell lysates.



p38α (C-20): sc-535. Immunofluorescence staining of methanol-fixed KNRK rat cells.

## SELECT PRODUCT CITATIONS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3. Usatyuk, P.V., et al. 2011. Photolysis of caged sphingosine-1-phosphate induces barrier enhancement and intracellular activation of lung endothelial cell signaling pathways. Am. J. Physiol. Lung Cell Mol. Physiol. 300: L840-L850.
4. Mraiche, F., et al. 2011. Activated NHE1 is required to induce early cardiac hypertrophy in mice. Basic Res. Cardiol. 106: 603-616.
5. Tong, K.M., et al. 2011. Adiponectin increases MMP-3 expression in human chondrocytes through adipor1 signaling pathway. J. Cell. Biochem. 112: 1431-1440.
6. Long, X. and Miano, J.M. 2011. Transforming growth factor-β1 (TGF-β1) utilizes distinct pathways for the transcriptional activation of microRNA 143/145 in human coronary artery smooth muscle cells. J. Biol. Chem. 286: 30119-30129.
7. Sreekanth, C.N., et al. 2011. Molecular evidences for the chemosensitizing efficacy of liposomal curcumin in paclitaxel chemotherapy in mouse models of cervical cancer. Oncogene 30: 3139-3152.
8. Lappas, M., et al. 2011. MAPK and AP-1 proteins are increased in term pre-labour fetal membranes overlying the cervix: Regulation of enzymes involved in the degradation of fetal membranes. Placenta 32: 1016-1025.



MONOS Satisfaction Guaranteed

Try **p38α/β (A-12): sc-7972** or **p38α (F-9): sc-271120**, our highly recommended monoclonal alternatives to p38α (C-20). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **p38α/β (A-12): sc-7972.**