**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, p38 proteins 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**

p38α (K-19) is available as either rabbit (sc-728) or goat (sc-728-G) polyclonal affinity purified antibody raised against a peptide mapping at the N-terminus of p38α of mouse origin.

**PRODUCT**

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-728 P (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as agarose (sc-728 AC) conjugate for immunoprecipitation, 500 µg/0.25 ml agarose in 1 ml.

**APPLICATIONS**

p38α (N-20) is recommended for detection of p38α and, to a lesser extent, p38β of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:50-1:500), immunoprecipitation (1:2 µg per 100-500 µg of total protein (1 ml of cell lysate)), immunofluorescence (starting dilution 1:25, dilution range 1:25-1:250), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:25, dilution range 1:25-1:250) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

p38α (N-20) is also recommended for detection of p38α and, to a lesser extent, p38β in additional species, including canine, bovine, porcine and avian.

Molecular Weight of p38α: 38 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, A-431 whole cell lysate: sc-2201 or MCF7 whole cell lysate: sc-2206.

**RESEARCH USE**

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

**STORAGE**

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

**DATA**

![Western blot analysis of p38α expression in Jurkat (A), A-431 (B), MCF7 (C), KNK (D) and HeLa (E) whole cell lysates.](image)

![Immunoperoxidase staining of formalin-fixed, paraffin-embedded human skeletal muscle tissue showing nuclear and cytoplasmic staining of myocytes. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human bone marrow tissue showing nuclear and cytoplasmic staining of bone marrow progenitor cells. Kindly provided by The Swedish Human Protein Atlas (HPA) program.](image)

**SELECT PRODUCT CITATIONS**


