10320 Camino Santa Fe, Suite G
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# p38 Antibody
**Catalog # ASM10427**

## Specification

### p38 Antibody - Product Information

| | |
|---|---|
| Application | **WB** |
| Primary Accession | Q16539 |
| Other Accession | NP_001306.1 |
| Host | **Rabbit** |
| Reactivity | **Human, Mouse, Rat, Rabbit, Hamster, Monkey, Pig, Chicken, Bovine, Dog, Sheep, Guinea Pig** |
| Clonality | **Polyclonal** |
| Format | **ATTO 488** |

**Description**
Rabbit Anti-Human p38 Polyclonal

**Target/Specificity**
Detects ~43kDa.

**Other Names**
CSAID Binding protein 1 Antibody, CSBP1 Antibody, CSBP2 Antibody, EXIP Antibody, MAP kinase MXI2 Antibody, MAPkinase p38alpha Antibody, MAPK14 Antibody, p38 ALPHA Antibody, p38 MAP kinase Antibody, p38 mitogen activated protein kinase Antibody, RK Antibody, SAPK 2A Antibody, Stress activated protein kinase 2A Antibody

**Immunogen**
A 20 residue synthetic peptide based on the human p38 with the cysteine residue added and coupled to KLH

**Purification**
Peptide Affinity Purified

| | |
|---|---|
| Storage | **-20ºC** |

**Storage Buffer**
PBS pH7.4, 50% glycerol, 0.09% sodium azide

| | |
|---|---|
| Shipping Temperature | **Blue Ice or 4ºC** |

**Certificate of Analysis**
A 1:1000 dilution of SPC-172 was sufficient for detection of p38 in 20 µg of HeLa cell lysate by ECL immunoblot analysis.

**Cellular Localization**
Cytoplasm | Nucleus

### p38 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot

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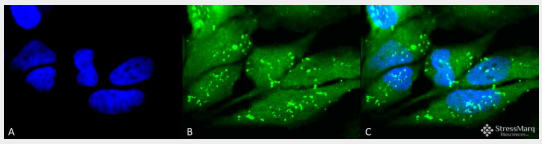
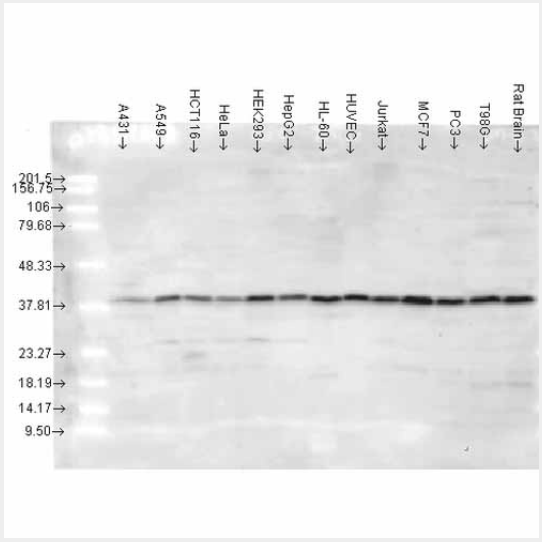
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

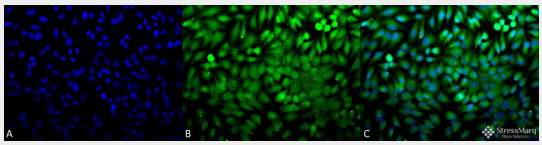
**p38 Antibody - Images**



Immunocytochemistry/Immunofluorescence analysis using Rabbit Anti-p38 Polyclonal Antibody (ASM10427). Tissue: HeLa Cells. Species: Human. Fixation: 2% Formaldehyde for 20 min at RT. Primary Antibody: Rabbit Anti-p38 Polyclonal Antibody (ASM10427) at 1:100 for 12 hours at 4°C. Secondary Antibody: FITC Goat Anti-Rabbit (green) at 1:200 for 2 hours at RT. Counterstain: DAPI (blue) nuclear stain at 1:40000 for 2 hours at RT. Localization: Mitochondrion. Cytoplasm. Nucleus. Magnification: 100x. (A) DAPI (blue) nuclear stain. (B) Anti-p38 Antibody. (C) Composite.




Western blot analysis of Human cancer cell lines showing detection of p38 protein using Rabbit Anti-p38 Polyclonal Antibody (ASM10427). Load: 15 µg protein. Block: 1.5% BSA for 30 minutes at RT. Primary Antibody: Rabbit Anti-p38 Polyclonal Antibody (ASM10427) at 1:4000 for 2 hours at RT. Secondary Antibody: Donkey Anti-Rabbit IgG: HRP for 1 hour at RT.



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## p38 Antibody - Background

The MAPK (mitogen activated protein kinase) comprises a family of ubiquitous praline-directed, protein-serine/threonine kinases which signal transduction pathways that control intracellular events including acute responses to hormones and major developmental changes in organisms (1). This super family consists of stress activated protein kinases (SAPKs); extracellular signal-regulated kinases (ERKs); and p38 kinases, each of which forms a separate pathway (2). The kinase members that populate each pathway are sequentially activated by phosphorylation. Upon activation, p38 MAPK/SAPK2α translocates into the nucleus where it phosphorylates one or more nuclear substrates, effecting transcriptional changes and other cellular processes involved in cell growth, division, differentiation, inflammation, and death (3). Specifically p38 always acts as a pro-apoptotic factor with its activation leading to the release of cytochrome c from mitochondria and cleavage of caspase 3 and its downstream effector, PARP (4). p38 MAPK is activated by a variety of chemical stress inducers including hydrogen peroxide, heavy metals, anisomycin, sodium salicylate, LPS, and biological stress signals such as tumor necrosis factor, interleukin-1, ionizing and UV irradiation, hyperosmotic stress and chemotherapeutic drugs (5). As a result, p38 alpha has been widely validated as a target for inflammatory disease including rheumatoid arthritis, COPD and psoriasis (6) and has also been implicated in cancer, CNS and diabetes (7).

## p38 Antibody - References

1. Pearson G., et al (2001) Endocrine Reviews 22 (2): 153-183.
2. Fan Y., et al (2007) Mol. Cells 23 (1): 30-38.
3. Han J., et al. (1994) Science 265: 808-811.
4. Van L. A., et al. (2004) Faseb J. 18: 1946−1948.
5. Deng et al. (2003) Cell 115: 61-70.
6. Salojin K.V., et al. (2006) J Immunol. 176 (3):1899-907.
7. Medicherla S., et al. (2006) J Pharmacol Exp Ther. 318(1): 99-107.