

**p38 alpha (MAP Kinase) Antibody**  
**p38 alpha (MAP Kinase) Antibody, Clone 9F12**  
**Catalog # ASM10075**

## Specification

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### p38 alpha (MAP Kinase) Antibody - Product Information

Application	<b>IHC, WB</b>
Primary Accession	<a href="#">O16539</a>
Other Accession	<a href="#">NP_001306.1</a>
Host	<b>Mouse</b>
Isotype	<b>IgG1</b>
Reactivity	<b>Human, Mouse, Rat</b>
Clonality	<b>Monoclonal</b>

#### Description

Mouse Anti-Human p38 alpha (MAP Kinase) Monoclonal IgG1

#### Target/Specificity

Detects ~38kDa.

#### 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

Full length recombinant protein expressed in E.coli cells

#### Purification

Protein G Purified

Storage **-20°C**

#### Storage Buffer

PBS, 50% glycerol, 0.09% sodium azide

Shipping Temperature

**Blue Ice or 4°C**

#### Certificate of Analysis

Detects ~38kDa protein corresponding to p38 $\alpha$  MAPK when loaded with 6 ng of purified p38 $\alpha$  by chemiluminescent immunoblot analysis using Goat anti-mouse IgG:HRP as the secondary antibody.

#### Cellular Localization

Cytoplasm | Nucleus

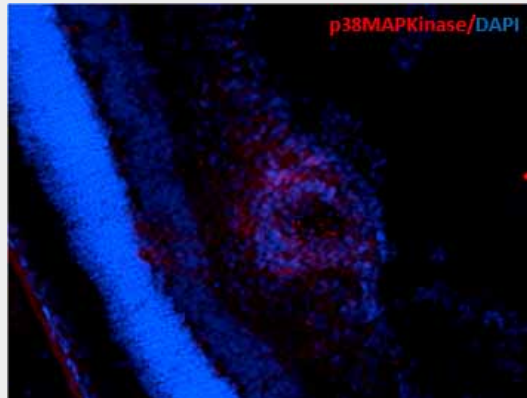
### p38 alpha (MAP Kinase) Antibody - Protocols

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

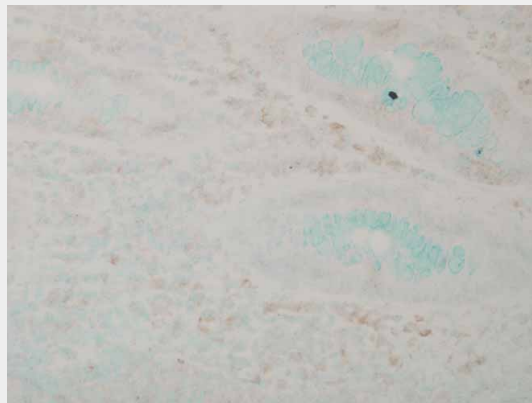
- [Western Blot](#)

- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

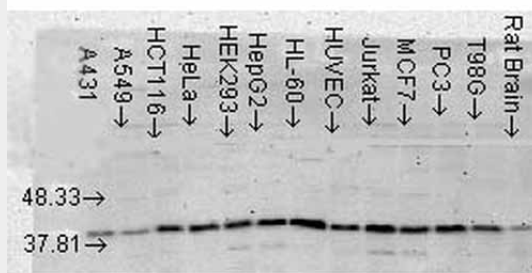
#### p38 alpha (MAP Kinase) Antibody - Images



Immunohistochemistry analysis using Mouse Anti-p38 MAPK Monoclonal Antibody, Clone 9F12 (ASM10075). Tissue: Retinal Injury Model. Species: Mouse. Primary Antibody: Mouse Anti-p38 MAPK Monoclonal Antibody (ASM10075) at 1:1000. Secondary Antibody: Alexa Fluor 594 Goat Anti-Mouse (red). Courtesy of: Dr. Rajashekhar Gangaraju, University of Indiana, Department of Ophthalmology, Eugene and Marilyn Glick Eye Institute.



Immunohistochemistry analysis using Mouse Anti-p38 MAPK Monoclonal Antibody, Clone 9F12 (ASM10075). Tissue: colon carcinoma. Species: Human. Fixation: Formalin. Primary Antibody: Mouse Anti-p38 MAPK Monoclonal Antibody (ASM10075) at 1:10000 for 12 hours at 4°C. Secondary Antibody: Biotin Goat Anti-Mouse at 1:2000 for 1 hour at RT. Counterstain: Mayer Hematoxylin (purple/blue) nuclear stain at 200 µl for 2 minutes at RT. Magnification: 40x.



Western Blot analysis of Human Cell lysates showing detection of p38 MAPK protein using Mouse Anti-p38 MAPK Monoclonal Antibody, Clone 9F12 (ASM10075). Load: 15 µg. Block: 1.5% BSA for 30 minutes at RT. Primary Antibody: Mouse Anti-p38 MAPK Monoclonal Antibody (ASM10075) at 1:1000 for 2 hours at RT. Secondary Antibody: Sheep Anti-Mouse IgG: HRP for 1 hour at RT.

### **p38 alpha (MAP Kinase) Antibody - Background**

The MAPK (mitogen activated protein kinase) comprises a family of ubiquitous praline-directed, proteinserine/ 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/SAPK2 $\alpha$  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 alpha (MAP Kinase) 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 KV, et al. (2006) *J Immunol.* 176 (3):1899-907.
7. Medicherla S. et al. (2006). *J Pharmacol Exp Ther.* 318(1): 99-107.