

Anti-p38



TECHNICAL SPECIFICATIONS

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Rabbit Anti-p38 (HOG1 Homologue) Polyclonal Antibody Product #: KAS-MA009

Immunogen

A 20 residue synthetic peptide (C)TYDEVISFVPPPLDQEEMES based on the human p38 (residues 341-360) (1) with the cysteine (C) residue added and the peptide coupled to KLH. This sequence is identical to mouse p38 over these residues.

Specificity

This antibody detects an ~43 kDa protein, corresponding to the apparent molecular mass of p38 (HOG1) on SDS-PAGE immunoblots, in samples from human, monkey, mouse, rat, bovine, rabbit, pig, canine, hamster, chicken, sheep and guinea pig origins.

Species Reactivity

human, monkey, mouse, rat, bovine, rabbit, pig, canine, hamster, chicken, sheep, guinea pig

Applications

Certified*

Western Blot (ECL)	1:10,000
Immunoprecipitation	1:500

*These working dilutions are provided as suggestions only. Further dilutions may be possible. Each user should determine the optimal conditions for their own particular experiment.

Positive Controls

HeLa Cell Lysate, Product#: LYC-HL100
Mouse Brain Tissue Extract, Product#: LYT-MB100
Rat Brain Tissue Extract, Product#: LYT-RB100

Scientific Background

p38 (HOG1), also known as SAPK-2, reactivating kinase or cytokine-suppressive binding protein, is a mouse 38 kDa serine threonine kinase that belongs to the mitogen-activated protein kinase family (1). p38 is identified as one of the major tyrosine-phosphorylated proteins in mouse monocyte cell lines upon lipopolysaccharide (LPS) treatment (2). Human homolog of p38 binds to cytokines suppressive anti-inflammatory drugs (CSAIDs), an anti-inflammatory drug that inhibits IL-1 and TNF- α synthesis (1). HOG1, the yeast homolog of p38, is stimulated by osmotic shock (3). p38 is activated by MAPK kinase MKK3 and Sek1/MKK4, the latter kinase is also involved in the activation of the stress-activated protein kinase pathway (4). In LPS-treated monocyte cells, the activity of a transcription activators called myocyte-enhancer factor 2 (MEF2) is increased through p38-catalysed phosphorylation, which results in increased c-jun gene transcription (5). p38 also activates MAPKAP kinase 2 in IL-1-stimulated cells (6).

References

1. Lee, J. C., *et al.* (1994) *Nature* **372**: 739-746.
2. Han, J., Bibbs, L., and Ulevitch, R. J. (1994) *Science* **265**: 808-811.
3. Brewster, J. L. (1993) *Science* **259**: 1760-1763.
4. Derijard, B., *et al.* (1995) *Science* **267**: 682-685.
5. Han, J. *et al.* (1997) *Nature* **386**: 296-299.
6. Freshney, N.W. *et al.* (1995) *Cell* **78**: 1039-1049.

Rev: 05/22/02

CERTIFICATE OF ANALYSIS

Anti-p38

Product #: KAS-MA009

Lot #: B204465

Format: Whole rabbit serum

Host: Rabbit

Antibody Type: Polyclonal

Certification: A 1:10,000 dilution of KAS-MA009 was sufficient for detection of p38 in 20 μ g of HeLa cell lysate (product# LYC-HL100) by ECL immunoblot analysis.

Certified by: K. Levant

QC by: C. Franz

Date: 05/22/02

Date: 04/26/02

Note: Stressgen makes every effort to provide a consistent source of high quality polyclonal antisera. However due to variations inherent in this technology, investigators are urged to purchase sufficient quantities of a specific lot number if an identical antisera is required throughout a study

STORAGE & SHIPPING: Store frozen product at or below -20°C. Thawed product may be stored for 2-4 weeks at 4°C. For optimal storage, aliquot to smaller portions and store at -20°C to -70°C. Avoid repeated freeze/thaw cycles. For maximum product recovery, after thawing, centrifuge the product vial before removing cap. Shipped on gel packs.



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