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Store at -20C
#9238

MKK3b Antibody

For Research Use Only. Not for Use in Diagnostic Procedures.

Applications: W, IP	Reactivity: H M R	Sensitivity: Endogenous	MW (kDa): 40	Source/Isotype: Rabbit	UniProt ID: #P46734	Entrez-Gene Id: 5606
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Product Usage Information

Application

Western Blotting
Immunoprecipitation

Dilution

1:1000
1:50

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at -20°C. Do not aliquot the antibody.

Specificity/Sensitivity

MKK3b Antibody detects endogenous levels of total MKK3b protein. This antibody does not cross-react with MEK1, MEK2, MKK4 or MKK6.

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to the N-terminal sequence of human MKK3. Antibodies are purified by protein A and peptide affinity chromatography.

Background

MKK3 and MKK6 are two closely related dual-specificity protein kinases that activate p38 MAP kinase (1-5). MKK3 and MKK6 both phosphorylate and activate p38 MAP kinase at its activation site, Thr-Gly-Tyr, but do not phosphorylate or activate Erk1/2 or SAPK/JNK. Phosphorylation of p38 MAP kinase dramatically stimulates its ability to phosphorylate protein substrates such as ATF-2 and Elk-1. MKK3 and MKK6 are both activated by different forms of cellular stress and inflammatory cytokines (4,5). Activation of MKK3 and MKK6 occurs through phosphorylation at Ser189 and Thr222 on MKK3 (2) and Ser207 and Thr211 on MKK6 (4,5). Three alternatively spliced transcript variants of MKK3 encoding distinct isoforms have been reported. Isoform B utilizes a different start codon compared to isoform C resulting in the production of a N-terminal segment of isoform B which is shorter and distinct from isoform C. MKK3b is the predominant form of MKK3 and strongly activates p38 MAP kinase (6)

Background References

- Derijard, B. et al. (1995) *Science* 267, 682-685.
- Raingeaud, J. et al. (1995) *J. Biol. Chem.* 270, 7420-7426.
- Sluss, H.K. et al. (1994) *Mol. Cell. Biol.* 14, 8376-8384.
- Raingeaud, J. et al. (1996) *Mol. Cell. Biol.* 16(3), 1247-1255.
- Han, J. et al. (1996) *J. Biol. Chem.* 271, 2886-2891.
- Han, J. et al. (1997) *FEBS Letters* 403(1), 19-22.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting **IP:** Immunoprecipitation

Cross-Reactivity Key

H: Human **M:** Mouse **R:** Rat

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