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#9156

Phospho-SEK1/MKK4 (Ser257/Thr261) Antibody

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

Applications: W	Reactivity: H M R Dm	Sensitivity: Endogenous	MW (kDa): 44	Source/Isotype: Rabbit	UniProt ID: #P45985	Entrez-Gene Id: 6416
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Product Usage Information

Application

Western Blotting

Dilution

1:1000

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

Phospho-SEK1/MKK4 (Ser257/Thr261) Antibody detects endogenous levels of SEK1/MKK4 phosphorylated at serine 257/threonine 261. This antibody does not cross-react with the corresponding phosphorylated residues of MEK1, MEK2 or MKK3. It will also react with SEK1/MKK4 singly phosphorylated at Thr261.

Species predicted to react based on 100% sequence homology

Xenopus, Zebrafish

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic phosphopeptide corresponding to residues surrounding Ser257/Thr261 of human SEK1/MKK4. Antibodies are purified by protein A and peptide affinity chromatography.

Background

SAPK/Erk kinase (SEK1), also known as MKK4 or Jun kinase kinase (JNKK), activates the MAP kinase homologues SAPK and JNK in response to various cellular stresses and inflammatory cytokines (1-3). Activation of SEK1 occurs through MEKK phosphorylation of serine and threonine residues at positions 257 and 261, respectively. Like MEK, SEK is a dual-specificity protein kinase that phosphorylates SAPK/JNK at a conserved T*PY* site in its activation loop (4). Phosphorylation by Akt at Ser80 inhibits SEK1 and suppresses stress-activated signal transduction (5).

Background References

1. Davis, R.J. (1994) *Trends Biochem. Sci.* 19, 470-473.
2. Sanchez, I. et al. (1994) *Nature* 372, 794-798.
3. Yan, M. et al. (1994) *Nature* 372, 798-800.
4. Kyriakis, J.M. et al. (1994) *Nature* 369, 156-160.
5. Park, H. et al. (2002) *J. Biol. Chem.* 277, 2573-2578.

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

Cross-Reactivity Key

H: Human **M:** Mouse **R:** Rat **Dm:** D. melanogaster

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