Revision 1

#9151 Store at -20C

Phospho-SEK1/MKK4 (Thr261) Antibody

Cell Signaling TECHNOLOGY®

Orders: 877-616-CELL (2355) orders@cellsignal.com

Support: 877-678-TECH (8324)

Web: info@cellsignal.com cellsignal.com

3 Trask Lane | Danvers | Massachusetts | 01923 | USA

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

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source:	UniProt ID:	Entrez-Gene Id:
WB	H M R	Endogenous	46	Rabbit	#P45985	6416

Product Usage Information

Application	Dilution
Western Blotting	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 (Thr261) Antibody detects endogenous levels of SEK1/MKK4 protein only when phosphorylated at threonine 261. This antibody does not cross-react with the corresponding phosphorylated residues of MEK1, MEK2 or MKK3.

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic phosphopeptide corresponding to residues around Thr261 of human SEK1. 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

WB: Western Blotting

Cross-Reactivity Key

H: human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **Mi:** mink **C:** chicken **Dm:** D. melanogaster **X:** Xenopus **Z:** zebrafish **B:** bovine **Dg:** dog **Pg:** pig **Sc:** S. cerevisiae **Ce:** C. elegans **Hr:** horse **GP:** Guinea Pig **Rab:** rabbit **All:** all species expected

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