Revision 4

#2694 Store at -20C

Phospho-IKKα/β (Ser176/180) Antibody II

Cell Signaling TECHNOLOGY®

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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 Mk	Endogenous	85 IKK-alpha 87 IKK-beta	Rabbit	#O14920, #O15111	3551, 1147

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-IKKα/β (Ser176/180) Antibody II detects endogenous levels of IKKα and IKKβ only when phosphorylated at Ser176 and Ser180 or Ser177 and Ser181, respectively.

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a phosphopeptide corresponding to a region surrounding Ser177/181 of IKKβ. Antibodies are purified by protein A and peptide affinity chromatography.

Background

The NF-κB/Rel transcription factors are present in the cytosol in an inactive state, complexed with the inhibitory IκB proteins (1-3). Most agents that activate NF-κB do so through a common pathway based on phosphorylation-induced, proteasome-mediated degradation of IκB (3-7). The key regulatory step in this pathway involves activation of a high molecular weight IκB kinase (IKK) complex whose catalysis is generally carried out by three tightly associated IKK subunits. IKKα and IKKβ serve as the catalytic subunits of the kinase and IKKγ serves as the regulatory subunit (8,9). Activation of IKK depends upon phosphorylation at Ser177 and Ser181 in the activation loop of IKKβ (Ser176 and Ser180 in IKKα), which causes conformational changes, resulting in kinase activation (10-13).

Background References

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7. Chen, Z.J. et al. (1996) *Cell* 84, 853-62.
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9. Karin, M. (1999) *Oncogene* 18, 6867-74.
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11. Mercurio, F. et al. (1997) *Science* 278, 860-6.
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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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