Kit Includes	Quantity	Applications	Reactivity	MW (kDa)	Isotype
Phospho-IKKα (Ser176)/IKKβ (Ser177) (C84E11) Rabbit mAb #2078	40 µl	W	H M (R) (Mk) (B)	85 (IKKalpha), 87 (IKKbeta)	Rabbit IgG
Phospho-IKKα/β (Ser176/180) (16A6) Rabbit mAb #2697	40 µl	W IHC-P IHC-F	H M R Mk (B)	85 IKK-alpha 87 IKK-beta	Rabbit IgG
Phospho-IKKα/β (Ser176/180) Antibody II #2694	40 µl	W	H M R Mk	85 IKK-alpha 87 IKK-beta	Rabbit
Anti-rabbit IgG, HRP-linked Antibody #7074	100 µl				Goat

Applications Key: W=Western Blotting IHC-P=Immunohistochemistry (Paraffin) IHC-F=Immunohistochemistry (Frozen)

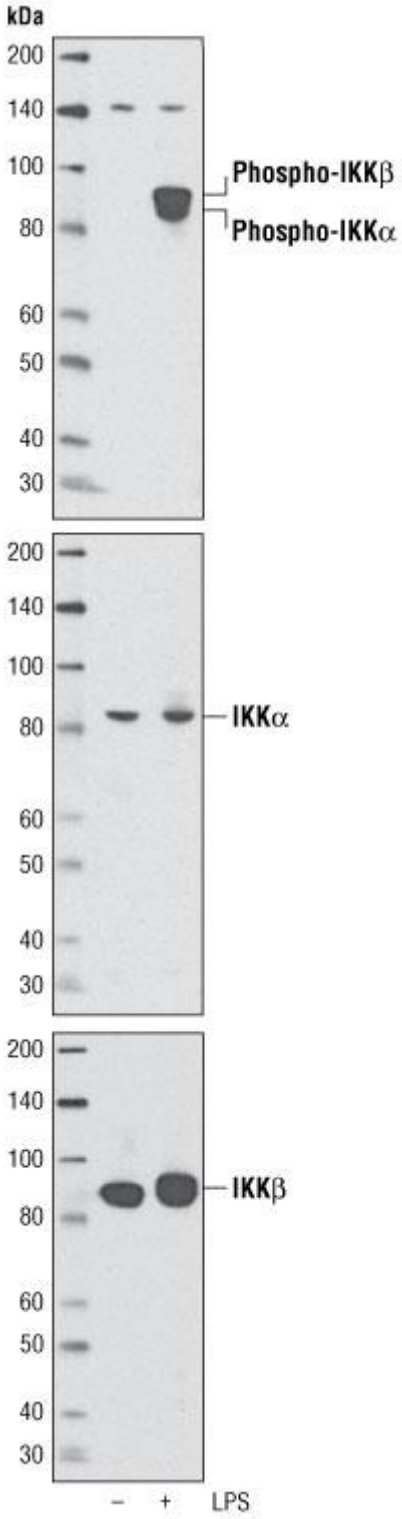
Reactivity Key: H=Human M=Mouse R=Rat Mk=Monkey B=Bovine

Species enclosed in parentheses are predicted to react based on 100% sequence homology.

Specificity / Sensitivity

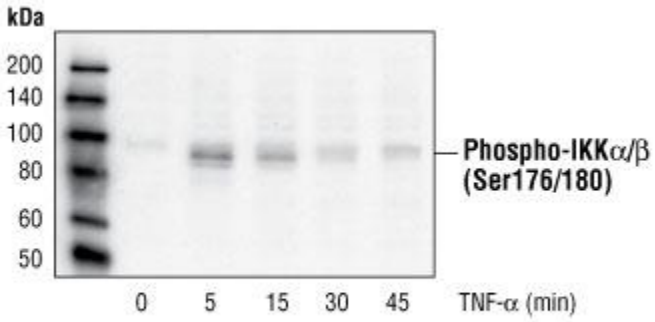
Phospho-IKKα/β (Ser176/180) Antibody, Phospho-IKKα/β (Ser176/180) Antibody II, and Phospho-IKKα/β (Ser176/180) (16A6) Rabbit mAb detect IKKα only when phosphorylated at Ser176/180 and IKKβ only when phosphorylated at Ser177/181.

Western Blotting



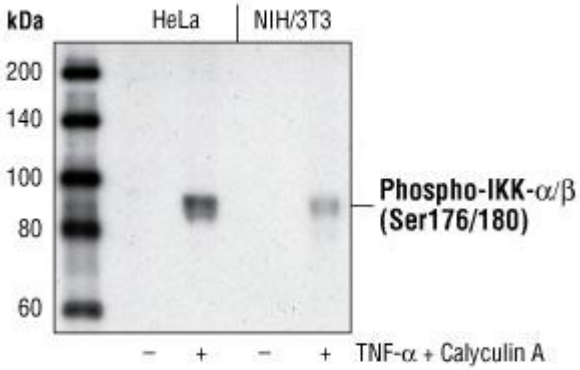
Western blot analysis of extracts from differentiated THP-1 cells, untreated or LPS-treated for 15 minutes, using Phospho-IKKα (Ser176)/IKKβ (Ser177) (C84E11) Rabbit mAb #2078 (upper), IKKα Antibody #2682 (middle) and IKKβ (2C8) Rabbit mAb #2370 (lower).

Western Blotting



Western blot analysis of extracts from HeLa cells, treated with TNF-α (20ng/ml) for the indicated times, using Phospho-IKKα/β (Ser176/180) Antibody II #2694.

Western Blotting



Western blot analysis of extracts from HeLa and NIH/3T3 cells, treated with TNF-α (20 ng/ml) and calyculin A #9902 (50 nM), using Phospho-IKKα/β (Ser176/180) (16A6) Rabbit mAb #2697.

Description

The Phospho-IKKalpha/beta (Ser176/180) Antibody Sampler Kit contains reagents to examine protein levels of IKKalpha when phosphorylated at Ser176/180 and IKKbeta when phosphorylated at Ser177/181. The kit contains primary and secondary antibodies to perform four Western blots with each antibody.

Source / Purification

Polyclonal antibodies #2687 and #2694 are produced by immunizing rabbits with a synthetic phosphopeptide corresponding to residues surrounding Ser176/180 of human IKKα and Ser177/181 of IKKβ, respectively, and are purified by protein A and peptide affinity chromatography. Monoclonal antibody #2697 is produced by immunizing rabbits with a synthetic phosphopeptide corresponding to residues surrounding Ser176/180 of human IKKα.

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).

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