

I κ B α (Ser-32/Ser-36), phospho-specific

Cat. # IM3741

Host Mouse Monoclonal IgG1

Size 100 μ l

Background:

The NF- κ B/Rel transcription factors are present in the cytosol in an inactive state complexed with the inhibitory I κ B proteins. Activation of I κ B α occurs through both serine and tyrosine phosphorylation events. Activation through phosphorylation at Ser-32 and Ser-36 is followed by proteasome-mediated degradation, resulting in the release and nuclear translocation of active NF- κ B. This pathway of I κ B α regulation occurs in response to various NF- κ B-activating agents, such as TNF α , interleukins, LPS, and irradiation. An alternative pathway for I κ B α regulation occurs through tyrosine phosphorylation of Tyr-42 and Tyr-305. Tyr-42 is phosphorylated in response to oxidative stress and growth factors. This phosphorylation can lead to degradation of I κ B α and NF- κ B-activation. In contrast, Tyr-305 phosphorylation by c-Abl has been implicated in I κ B α nuclear translocation and inhibition of NF- κ B-activation. Thus, tyrosine phosphorylation of I κ B α may be an important regulatory mechanism in NF- κ B signaling.

References

- Bui, N.T. et al. (2001) J Cell Biol 152(4):753.
 Finco, T.S. et al. (1994) Proc. Natl. Acad. Sci. USA 91:11884.
 Waris et al. (2003) J Biol Chem 278(42):40778.

Immunogen:

Clone 39A1413 was generated from a synthetic peptide (coupled to KLH) corresponding to amino acid residues around serine 32 and 36 of human I κ B α . This peptide sequence is highly conserved in mouse, rat, dog, cow, and pig I κ B α .

Applications:

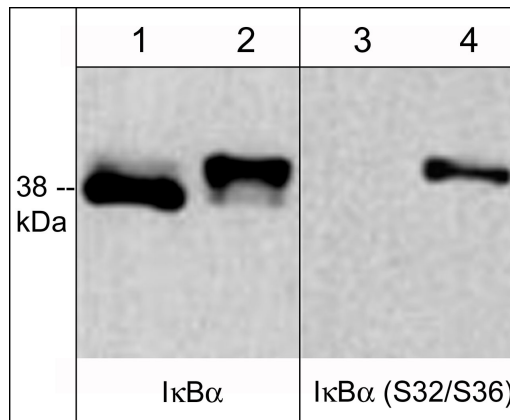
WB	1:500
ELISA	1:2000
IP	1:100

End user should determine optimal dilution for their particular applications and experiments. Western blot membranes were incubated with diluted antibody in 5% non-fat milk, PBS, 0.04% Tween20 for 1 hour at room temperature.

Related Products:

- IP1031 I κ B α (Tyr-42), phospho-specific Rabbit Polyclonal
 IP1041 I κ B α (Tyr-305), phospho-specific Rabbit Polyclonal
 IP1861 I κ B α (C-terminus) Rabbit Polyclonal
 IK6320 I κ B α Phospho-Regulation Antibody Sampler Kit
 IM3681 IKAP (Central region) Mouse Monoclonal
 RS3251 Mouse Anti-Rabbit Ig Light-Chain Specific:HRP Mouse Monoclonal

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Western blot analysis of Jurkat cells untreated (lanes 1 & 3) or treated with TNF α (1 nM). The blots were probed with anti-I κ B α (lanes 1 & 2) or anti-I κ B α (Ser-32/Ser-36) (lanes 3 & 4).

Buffer and Storage:

Mouse monoclonal antibody purified with protein A chromatography is supplied in 100 μ l phosphate-buffered saline, 0.5% BSA, and 0.05% sodium azide. Store at 4°C. For long term storage, store at -20°C.

Specificity:

The antibody detects a 38 kDa* protein on SDS-PAGE immunoblots of Jurkat cells treated with calpain inhibitor (ALLN) followed by TNF α , but the antibody does not detect this band in untreated cells.

*All molecular weights (MW) are confirmed by comparison to Bio-Rad Rainbow Markers and to western blot mobilities of known proteins with similar MW.

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