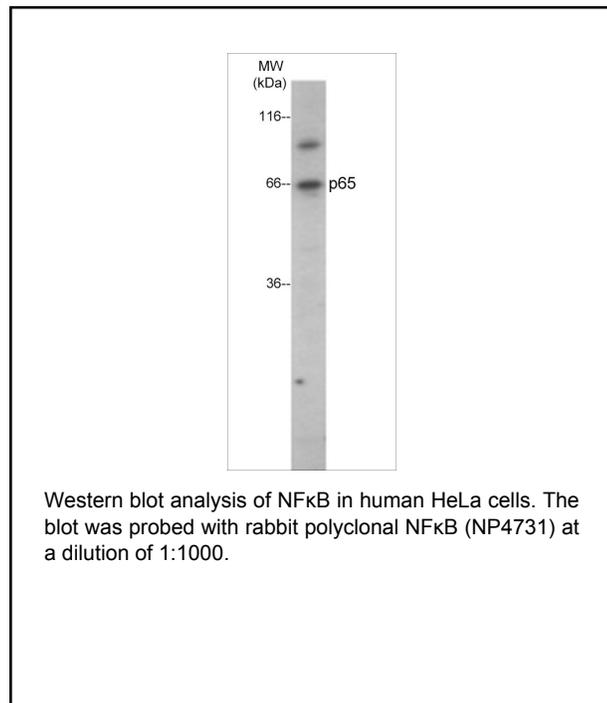


Background

The NF-κB/Rel transcription factors are present in the cytosol in an inactive state complexed with the inhibitory IκB proteins. Activation of IκBα 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-κB. This pathway of IκBα regulation occurs in response to various NF-κB-activating agents, such as TNFα, interleukins, LPS, and irradiation. An alternative pathway for IκBα 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 IκBα and NF-κB-activation. In contrast, Tyr-305 phosphorylation by c-Abl has been implicated in IκBα nuclear translocation and inhibition of NF-κB-activation. Thus, tyrosine phosphorylation of IκBα may be an important regulatory mechanism in NF-κB signaling.

Background References

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



Applications

WB	1:1000
ELISA	1:2000

Species Reactivity

Hu, Rt, Ms, Ck

Specificity

This antibody detects NFκB at 65 kDa* on SDS-PAGE immunoblots of human HeLa cells and mouse macrophages (RAW).

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

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.

Immunogen

Uniprot ID: Q04206

The antibody was developed against a synthetic peptide corresponding to amino acid 538-546 from human NFκB. This sequence is well conserved in rat, mouse, and chicken NFκB.

Buffer and Storage

Rabbit polyclonal antibody purified with protein G chromatography is supplied in 100µl phosphate-buffered saline containing 0.05% BSA and 0.05% sodium azide. Store at 4°C, stable for 6 months. For long term storage, aliquot and store at -20°C.

Related Products

IK6320	IκBα Phospho-Regulation Antibody Sampler Kit
IM4761	IKKα Mouse Monoclonal
IM4771	IKKβ Mouse Monoclonal
IM4781	IKKγ/NEMO Mouse Monoclonal
IM4811	IKKε/TBK1 Mouse Monoclonal

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