



Qty: 100 µg/200 µL

Mouse anti-NFκB (p65)

Catalog No. 436700

Mouse anti- NFκB (p65)

FORM

This affinity-purified mouse monoclonal antibody is supplied as a 200 µL aliquot at a concentration of 0.5 mg/mL in PBS, pH 7.4, containing 0.1% sodium azide. This antibody is highly purified from mouse ascites by protein A chromatography.

Clone: 572

Isotype: IgG1

IMMUNOGEN

Recombinant protein derived from the N-terminus region of human NFκB (p65) protein (accession # Q04206, NP_068810), which is identical to Rhesus monkey. This protein is 99% similar to chimpanzee, 98% similar to rat, dog, bovine and horse and finally 96% to mouse.

SPECIFICITY

This antibody is specific for human NFκB (p65) subunit (TF65_human, transcription factor P65) protein. On Western blots of human HeLa cell lysates, it identifies the target band at ~65 kDa.

REACTIVITY

Reactivity has been confirmed with human HeLa and mouse 3T3 L1/6 cell lysates using Western blotting. The reactivity has also been confirmed with human HeLa cells using immunoprecipitation and immunofluorescence. Based on amino acid sequence homology, reactivity with Rhesus monkey, chimpanzee, rat, dog, bovine, horse and mouse, is also expected.

Sample	Western Blotting	Immunofluorescence	Immunoprecipitation
Human	+++	+++	+++
Mouse	+++	ND	ND
Monkey (Rhesus)	ND	ND	ND
Chimpanzee	ND	ND	ND
Rat	ND	ND	ND
Dog	ND	ND	ND
Bovine	ND	ND	ND
Horse	ND	ND	ND

(Excellent +++, Good ++, Poor +, No reactivity 0, Not applicable N/A, Not determined ND)

USAGE

Working concentrations for specific applications should be determined by the investigator. Appropriate concentrations will be affected by several factors, including secondary antibody affinity, antigen concentration, sensitivity of detection method, temperature and length of incubations, etc. The suitability of this antibody for applications other than those listed below has not been determined. The following concentration ranges are recommended starting points for this product.

Western Blotting: 2 µg/mL
Immunofluorescence: 2 µg/mL
Immunoprecipitation: 5 µg/IP reaction

(cont')

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PI436700

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STORAGE

Store at 2-8°C for up to one month. Store at -20°C for long-term storage. Avoid repeated freezing and thawing.

BACKGROUND

Nuclear factor-κB proteins are transcription factors that consists of homo- and heterodimers of NFκB1/p50 and RelA/p65 subunits, which play critical roles in apoptosis, tumorigenesis, various autoimmune diseases and inflammation.¹ In most cell types NFκB is present in the cytoplasm as a 50 kDa (p50) subunit and a 65 (p65, rel A) subunit. Both p50 and 65 share extensive N-terminal homology with the v rel oncogene product.²

Activation of NFκB is induced by a large number of stimuli and it is tightly regulated by IκB. After cell stimulation IκB undergoes phosphorylation, ubiquitination and degradation by a proteasome-dependent pathway allowing nuclear translocation of the active dimeric NFκB transcription factor, which is normally present in the cytoplasm.³

Immunopositivity of active NFκB (p65) has been shown in Hodgkin's and Reed-Sternberg cells. NFκB is thought to be an important transcriptional regulator for HIV as well as a key to a number of diseases such as Alzheimer's, atherosclerosis and cancer.^{4,5}

REFERENCES

1. Hacker H et al. *Sci STKE* (357):re13, 2006.
2. Cui R et al. *Circ Res* 99(7):723-730, 2006.
3. Jijon H et al. *Cell Signal* 16(9):1023-1032, 2004.
4. Dolcet X et al. *J Biol Chem* 281(31):22118-22130, 2006.
5. Garcia M et al. *Am J Clin Pathol* 128 (3): 464-73, 2007

RELATED PRODUCTS

Product	Conjugate	Cat. No.
Protein A	Sepharose 4B	10-1041
rec-Protein G	Sepharose 4B	10-1241
ZyMAX™ Goat anti-rabbit IgG	Unconjugated	81-6100
ZyMAX™ Goat anti-mouse IgG	Unconjugated	81-6500

Secondary antibody conjugates.

Conjugate	Goat anti-rabbit IgG (H+L)	Goat anti-mouse IgG (H+L)	Ex/Em*	Fluorescence similar to--
Alexa Fluor® 488	A11008	A11001	495/519	FITC
Alexa Fluor® 555	A21428	A21422	555/565	Cy3
Alexa Fluor® 594	A11012	A11005	590/617	Texas Red
Alexa Fluor® 647	A21244	A21235	650/668	Cy5
HRP	81-6120	81-6520	NA**	NA
AP	81-6122	81-6522	NA	NA
Biotin	B2770	B2763	NA	NA

*Excitation/emission (nm); **Not applicable

For additional secondary antibody conjugates, visit www.invitrogen.com/antibodies

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