# Anti-NF-kB p105 / p50 Antibody

### R1309-9



Product Type: Rabbit polyclonal IgG, primary antibodies

Species reactivity: Human, Mouse, Rat
Applications: WB, IF-Cell, IHC-P

Molecular Wt: Predicted band size: 105/50 kDa

**Description:** NF-kappa-B is a pleiotropic transcription factor present in almost all cell types and is the

endpoint of a series of signal transduction events that are initiated by a vast array of stimuli related to many biological processes such as inflammation, immunity, differentiation, cell growth, tumorigenesis and apoptosis. NF-kappa-B is a homo- or heterodimeric complex formed by the Rel-like domain-containing proteins RELA/p65, RELB, NFKB1/p105, NFKB1/p50, REL and NFKB2/p52 and the heterodimeric p65-p50 complex appears to be most abundant one. The dimers bind at kappa-B sites in the DNA of their target genes and the individual dimers have distinct preferences for different kappa-B sites that they can bind with distinguishable affinity and specificity. Different dimer combinations act as transcriptional activators or repressors, respectively. NF-kappa-B is controlled by various mechanisms of post-translational modification and subcellular compartmentalization as well as by interactions with other cofactors or corepressors. NF-kappa-B heterodimeric p65-p50 and RelB-p50

complexes are transcriptional activators.

**Immunogen:** Synthetic peptide within human NFKB1 aa 320-366.

Positive control: Hela cell lysates, HepG2 cell lysates, Raji cell lysates, HeLa, mouse stomach tissue, rat

stomach tissue, human breast carcinoma tissue.

Subcellular location: Nucleus. Cytoplasm.

Database links: SwissProt: P19838 Human | P25799 Mouse | Q63369 Rat

**Recommended Dilutions:** 

**WB** 1:500-1:1,000

**IF-Cell** 1:100

**IHC-P** 1:200-1:1,000

Storage Buffer: 1\*PBS (pH7.4), 0.2% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

Storage Instruction: Shipped at 4°C. Store at +4°C short term (1-2 weeks). It is recommended to aliquot into

single-use upon delivery. Store at -20 °C long term.

Purity: Immunogen affinity purified.

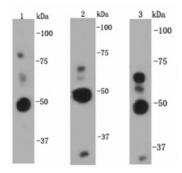
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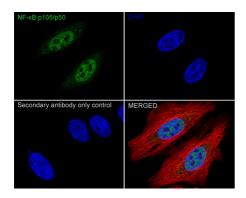
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#### **Images**



**Fig1:** Western blot analysis on Hela (1), HepG2 (2) and Raji (3) cell lysates using anti-NF-κB p105/p50 rabbit polyclonal antibodies.



**Fig2:** Immunocytochemistry analysis of HeLa cells labeling NF-kB p105 / p50 with Rabbit anti-NF-kB p105 / p50 antibody (R1309-9) at 1/100 dilution.

Cells were fixed in 4% paraformaldehyde for 15 minutes at room temperature, permeabilized with 0.1% Triton X-100 in PBS for 15 minutes at room temperature, then blocked with 1% BSA in 10% negative goat serum for 1 hour at room temperature. Cells were then incubated with Rabbit anti-NF-kB p105 / p50 antibody (R1309-9) at 1/100 dilution in 1% BSA in PBST overnight at 4  $^{\circ}$ C. Goat Anti-Rabbit IgG H&L (iFluor  $^{\dagger}$  488, HA1121) was used as the secondary antibody at 1/1,000 dilution. PBS instead of the primary antibody was used as the secondary antibody only control. Nuclear DNA was labelled in blue with DAPI.

Beta tubulin (HA601187, red) was stained at 1/100 dilution overnight at  $+4^{\circ}$ C. Goat Anti-Mouse IgG H&L (iFluor \*\* 594, HA1126) was used as the secondary antibody at 1/1,000 dilution.

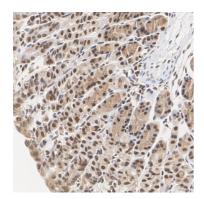
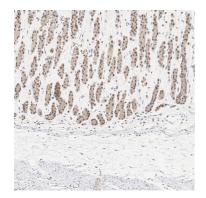


Fig3: Immunohistochemical analysis of paraffin-embedded mouse stomach tissue with Rabbit anti-NF-kB p105 / p50 antibody (R1309-9) at 1/1,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH $_2$ O and PBS, and then probed with the primary antibody (R1309-9) at 1/1,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

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**Fig4:** Immunohistochemical analysis of paraffin-embedded rat stomach tissue with Rabbit anti-NF-kB p105 / p50 antibody (R1309-9) at 1/1,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH<sub>2</sub>O and PBS, and then probed with the primary antibody (R1309-9) at 1/1,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

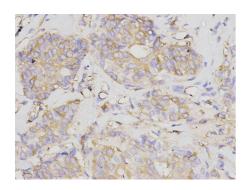


Fig5: Immunohistochemical analysis of paraffin-embedded human breast carcinoma tissue using anti-NF- $\kappa$ B p105/p50 rabbit polyclonal antibody.

Note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

#### **Background References**

"The ubiquitin-proteasome pathway is required for processing the NF-kappa B1 precursor protein and the activation of NF-kappa B." Palombella V.J., Rando O.J., Goldberg A.L., Maniatis T. Cell 78:773-785(1994) "The tumor suppressor protein menin interacts with NF-kappaB proteins and inhibits NF-kappaB-mediated transactivation." Heppner C., Bilimoria K.Y., Agarwal S.K., Kester M., Whitty L.J., Guru S.C., Chandrasekharappa S.C., Collins F.S., Spiegel A.M., Marx S.J., Burns A.L. Oncogene 20:4917-4925(2001)