

# NF-κB1 p105/p50 (D7H5M) Rabbit mAb



✓ 100 µl  
(10 western blots)

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**For Research Use Only. Not For Use In Diagnostic Procedures.**

Entrez-Gene ID #4790  
Swiss-Prot Acc. #P19838

Applications W, IP, ChIP Endogenous	Species Cross-Reactivity* H, M, (Mk)	Molecular Wt. 50 kDa, Active form 120 kDa Precursor	Isotype Rabbit IgG**
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**Background:** Transcription factors of the nuclear factor κB (NF-κB)/Rel family play a pivotal role in inflammatory and immune responses (1,2). There are five family members in mammals: RelA, c-Rel, RelB, NF-κB1 (p105/p50), and NF-κB2 (p100/p52). Both p105 and p100 are proteolytically processed by the proteasome to produce p50 and p52, respectively. Rel proteins bind p50 and p52 to form dimeric complexes that bind DNA and regulate transcription. In unstimulated cells, NF-κB is sequestered in the cytoplasm by IκB inhibitory proteins (3-5). NF-κB-activating agents can induce the phosphorylation of IκB proteins, targeting them for rapid degradation through the ubiquitin-proteasome pathway and releasing NF-κB to enter the nucleus where it regulates gene expression (6-8). NIK and IKKα (IKK1) regulate the phosphorylation and processing of NF-κB2 (p100) to produce p52, which translocates to the nucleus (9-11).

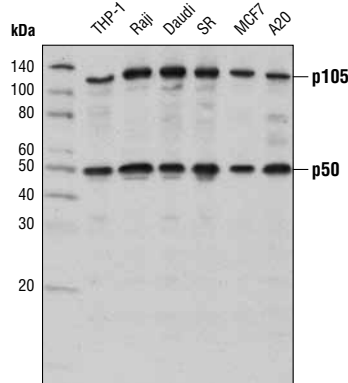
Following IKK-mediated phosphorylation of p105 NF-κB at multiple sites (Ser921, 923, 927, and 932) on its carboxy-terminus, SCF/β-TrCP mediated processing produces the 50 kDa active form p50 (12,13).

**Specificity/Sensitivity:** NF-κB1 p105/p50 (D7H5M) Rabbit mAb recognizes endogenous levels of total NF-κB1 p105/p50 protein.

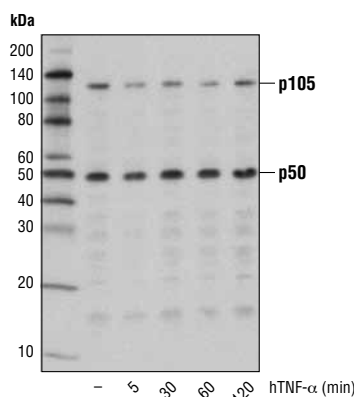
**Source/Purification:** Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Gly415 of human NF-κB p105/p50 protein.

## Background References:

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Western blot analysis of extracts from various cell lines using NF-κB1 p105/p50 (D7H5M) Rabbit mAb.



Western blot analysis of extracts from HeLa cells, untreated (-) or treated with Human Tumor Necrosis Factor-α (hTNF-α) #8902 (10 ng/ml) for the indicated times, using NF-κB1 p105/p50 (D7H5M) Rabbit mAb.

**Storage:** Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

\*Species cross-reactivity is determined by western blot.

\*\*Anti-rabbit secondary antibodies must be used to detect this antibody.

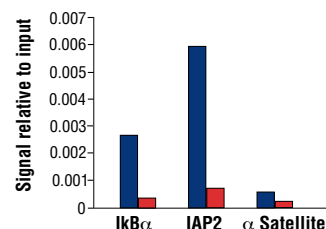
## Recommended Antibody Dilutions:

Western blotting	1:1000
Immunoprecipitation	1:100
Chromatin IP	1:50

For product specific protocols please see the web page for this product at [www.cellsignaling.com](http://www.cellsignaling.com).

Please visit [www.cellsignaling.com](http://www.cellsignaling.com) for a complete listing of recommended complementary products.

■ NF-κB1 p105/p50 (D7H5M) Rabbit mAb #12540  
■ Normal Rabbit IgG #2729



Chromatin immunoprecipitations were performed with cross-linked chromatin from 4 x 10<sup>6</sup> HeLa cells treated with Human Tumor Necrosis Factor-α (hTNF-α) #8902 (30 ng/ml) for 1 hour and either 10 µl of NF-κB1 p105/p50 (D7H5M) Rabbit mAb or 2 µl of Normal Rabbit IgG #2729 using SimpleChIP® Enzymatic Chromatin IP Kit (Magnetic Beads) #9003. The enriched DNA was quantified by Real-Time PCR using SimpleChIP® Human IκBα Promoter Primers #5552, human IAP2 promoter primers, and SimpleChIP® Human α Satellite Repeat Primers #4486. The amount of immunoprecipitated DNA in each sample is represented as signal relative to the total amount of input chromatin, which is equivalent to one.

**IMPORTANT:** For western blots, incubate membrane with diluted antibody in 5% w/v BSA, 1X TBS, 0.1% Tween-20 at 4°C with gentle shaking, overnight.

**Applications Key:** W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide  
**Species Cross-Reactivity Key:** H—human M—mouse R—rat Hm—hamster Mk—monkey Mi—mink C—chicken Dm—D. melanogaster X—Xenopus Z—zebrafish B—bovine  
Dg—dog Pg—pig Sc—S. cerevisiae Ce—C. elegans Hr—horse All—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.