

#3035 Store at **-20°C**

NF-κB p105/p50 Antibody

100 μl
 (10 Western mini-blot)



Orders ■ 877-616-CELL (2355)
 orders@cellsignal.com
Support ■ 877-678-TECH (8324)
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Web ■ www.cellsignal.com

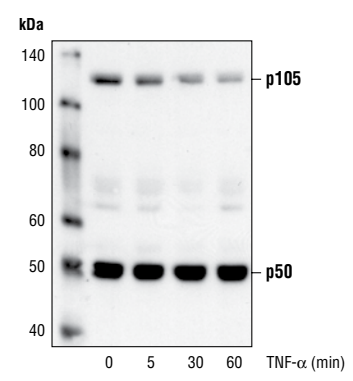
rev. 01/26/09

This product is for *in vitro* research use only and is not intended for use in humans or animals.
 This product is not intended for use as a therapeutic or in diagnostic procedures.

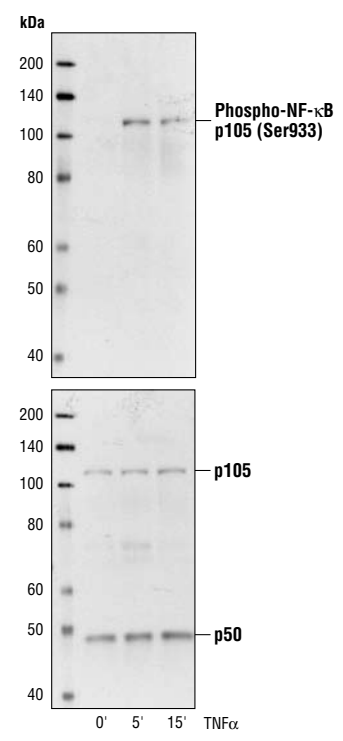
Applications	Species Cross-Reactivity*	Molecular Wt.	Source
W, IP Endogenous	H, Mk	50 kDa Active form 120 kDa Precursor.	Rabbit

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. The p50 and p52 products form dimeric complexes with Rel proteins, which are then able to bind DNA and regulate transcription. In unstimulated cells, NF-κB is sequestered in the cytoplasm by its inhibitory proteins, the IκB's (3-5). NF-κB-activating agents can induce the phosphorylation of IκB's, targeting them for rapid degradation through a ubiquitin-proteasome pathway, releasing NF-κB to enter the nucleus, where it regulates gene expression (6-8). Processing of NF-κB2 p100 is regulated by NIK and IKK1 (IKKα), which triggers the phosphorylation and processing to p52, which can then undergo nuclear translocation (9-11).

Following IKK-mediated phosphorylation of p105 NF-κB at multiple sites (Ser921, 923, 927, and 932) on its carboxy-terminus, SCFβ-TrCP mediated processing produces the 50kDa active form p50 (10,11)



Western blot analysis of extracts from Hela cells, untreated or treated with TNF-α (12ng/ml) for the indicated amounts of time, using NF-κB p105/p50 Antibody.



Western blot analysis of extracts from Vero cells, untreated or treated with TNF-α #2169 (20 ng/ml) for the times indicated, using Phospho-NF-κB p105 (Ser933) (18E6) Rabbit mAb #4806 (upper) and NF-κB p105/p50 Antibody #3035 (lower).

Specificity/Sensitivity: NF-κB p105/p50 Antibody detects endogenous levels of the precursor protein p105 and its cleavage product p50.

Source/Purification: Polyclonal antibodies are produced by immunizing animals with a synthetic peptide (KLH-coupled) corresponding to amino acids at the amino-terminus of human NF-κB p105.

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

Storage: Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 μg/ml BSA and 50% glycerol. 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 1:50

For application specific protocols please see the web page for this product at www.cellsignal.com.

- Companion Products:**
- Phospho-NF-κB p105 (Ser933) (18E6) Rabbit mAb #4806
 - Phospho-NF-kappaB p105 (Ser933) (178F3) Rabbit mAb (IHC Specific) #4808
 - Phospho-NF-κB p65 (Ser536) (93H1) Rabbit mAb #3033
 - Phospho-NF-κB p65 (Ser536) (7F1) Mouse mAb #3036
 - Phospho-NF-kappaB p65 (Ser468) Antibody #3039
 - IκBα (44D4) Rabbit mAb #4812
 - RelB Antibody #4954
 - c-Rel Antibody #4727
 - IKKalpha Antibody #2682
 - IKKbeta (2C8) Rabbit mAb #2370
 - Phospho-IKKα/β (Ser176/180) (16A6) Rabbit mAb #2697
 - IKKgamma (DA10-12) Mouse mAb #2695
 - NF-kappaB2 p100/p52 Antibody #4882
 - Phospho-NF-κB2 p100 (Ser866/870) Antibody #4810
 - Phototope®-HRP Western Blot Detection System, Anti-rabbit IgG, HRP-linked Antibody #7071
 - Anti-rabbit IgG, HRP-linked Antibody #7074
 - Prestained Protein Marker, Broad Range (Premixed Format) #7720
 - Biotinylated Protein Ladder Detection Pack #7727
 - 20X LumiGLO® Reagent and 20X Peroxide #7003

Please visit www.cellsignal.com for a complete listing of recommended companion products.

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—zebra fish B—bovine
 Dg—dog Pg—pig Sc—S. cerevisiae All—all species expected Species enclosed in parentheses are predicted to react based on 100% sequence homology.

Background References:

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- (2) Baeuerle, P.A. and Baltimore, D. (1996) *Cell* 87, 13–20.
- (3) Haskill, S. et al. (1991) *Cell* 65, 1281–1289.
- (4) Thompson, J.E. et al. (1995) *Cell* 80, 573–582.
- (5) Whiteside, S.T. et al. (1997) *EMBO J.* 16, 1413–1426.
- (6) Traenckner, E.B. et al. (1995) *EMBO J.* 14, 2876–2883.
- (7) Scherer, D.C. et al. (1995) *Proc. Natl. Acad. Sci. USA* 92, 11259–11263.
- (8) Chen, Z.J. et al. (1996) *Cell* 84, 853–862.
- (9) Senftleben, U. et al. (2001) *Science* 293, 1495–1499.
- (10) Coope, H.J. et al. (2002) *EMBO J.* 21, 5375–5385.
- (11) Xiao, G. et al. (2001) *Mol. Cell* 7, 401–409.
- (12) Heissmeyer, V. et al. (2001) *Mol Cell Biol* 21, 1024–1035.
- (13) Orian, A. et al. (2000) *EMBO J* 19, 2580–2591.

