

Acetyl-NF-κB p65 (Lys310) (D2S3J) Rabbit mAb

✓ 100 μl
(10 western blots)

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Applications W, IP Transfected	Species Cross-Reactivity* H, M, (Mk)	Molecular Wt. 65 kDa	Isotype Rabbit IgG**
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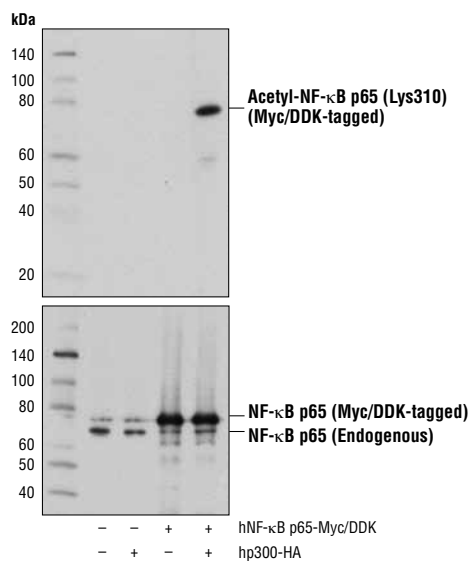
Background: Transcription factors of the nuclear factor κB (NF-κB)/Rel family play a pivotal role in inflammatory and immune responses (1,2). There are five family members in mammals: RelA, c-Rel, RelB, NF-κB1 (p105/p50), and NF-κB2 (p100/p52). Both p105 and p100 are proteolytically processed by the 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).

NF-κB assembly with IκB, DNA binding, and transcriptional activity, are regulated by p300/CBP acetyltransferases that principally target Lys218, Lys221, and Lys310 (12-14). This process is reciprocally regulated by histone deacetylases (HDACs); several HDAC inhibitors have been shown to activate NF-κB (12-14).

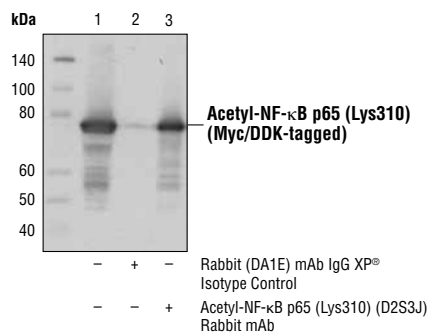
Specificity/Sensitivity: Acetyl-NF-κB p65 (Lys310) (D2S3J) Rabbit mAb recognizes overexpressed levels of NF-κB p65 protein only when acetylated at Lys310.

Source/Purification: Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Lys310 of human NF-κB p65 protein.

Immunoprecipitation of acetyl-NF-κB p65 (Lys310) from 293T cells, cotransfected with Myc/DDK-tagged human NF-κB p65 and HA-tagged human p300, using Rabbit (DA1E) mAb IgG XP® Isotype Control #3900 (lane 2) or Acetyl-NF-κB p65 (Lys310) (D2S3J) Rabbit mAb (lane 3). Lane 1 is 10% input. Western blot analysis was performed using Acetyl-NF-κB p65 (Lys310) (D2S3J) Rabbit mAb.



Western blot analysis of extracts from 293T cells, mock transfected (-) or transfected with constructs expressing Myc/DDK-tagged human NF-κB p65 (hNF-κB p65; +) and HA-tagged human p300 (hp300-HA; +), using Acetyl-NF-κB p65 (Lys310) (D2S3J) Rabbit mAb (upper) or NF-κB p65 (D14E12) XP® Rabbit mAb #8242 (lower).



Entrez-Gene ID #5970
Swiss-Prot Acc. #Q04206

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

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

Please visit www.cellsignaling.com for a complete listing of recommended complementary products.

Background References:

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- (4) Thompson, J.E. et al. (1995) *Cell* 80, 573-82.
- (5) Whiteside, S.T. et al. (1997) *EMBO J* 16, 1413-26.
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- (11) Xiao, G. et al. (2001) *Mol Cell* 7, 401-9.
- (12) Ashburner, B.P. et al. (2001) *Mol Cell Biol* 21, 7065-77.
- (13) Mayo, M.W. et al. (2003) *J Biol Chem* 278, 18980-9.
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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 AI—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.