


### Anti-NF-kB p65 (acetyl K310) antibody ab19870

★★★★★ [6 Abreviews](#) [108 References](#) [画像数 5](#)

#### 製品の概要

製品名	Anti-NF-kB p65 (acetyl K310) antibody
製品の詳細	Rabbit polyclonal to NF-kB p65 (acetyl K310)
由来種	Rabbit
アプリケーション	<b>適用あり:</b> WB, IP, Dot blot <b>適用なし:</b> ICC/IF
種交差性	<b>交差種:</b> Mouse, Rat <b>交差が予測される動物種:</b> Human 
免疫原	Synthetic peptide corresponding to Human NF-kB p65 aa 300-400 (internal sequence) conjugated to keyhole limpet haemocyanin. (Peptide available as <a href="#">ab20612</a> )
特記事項	<p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&amp;As</p>

#### 製品の特性

製品の状態	Liquid
保存方法	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C. Avoid freeze / thaw cycle.
バッファー	pH: 7.40 Preservative: 0.02% Sodium azide Constituent: PBS
精製度	Batches of this product that have a concentration < 1mg/ml may have BSA added as a stabilising agent. If you would like information about the formulation of a specific lot, please contact our scientific support team who will be happy to help. Protein A purified

ポリ/モノ	ポリクローナル
アイソタイプ	IgG

## アプリケーション

**The Abpromise guarantee**      **Abpromise保証は、** 次のテスト済みアプリケーションにおけるab19870の使用に適用されます  
 アプリケーションノートには、推奨の開始希釈率がありますが、適切な希釈率につきましてはご検討ください。

アプリケーション	Abreviews	特記事項
WB	★★★★★ (3)	Use a concentration of 2.5 µg/ml. Detects a band of approximately 65 kDa (predicted molecular weight: 65 kDa). Collaborator data suggests that immunoprecipitation of this antibody prior to Western blotting is required to obtain the best results (see images)
IP		Use a concentration of 2.5 µg/ml.
Dot blot		Use at an assay dependent concentration.

**追加情報**      Is unsuitable for ICC/IF.

## ターゲット情報

**機能**      NF-kappa-B is a pleiotropic transcription factor which is present in almost all cell types and is involved in 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 complexes are held in the cytoplasm in an inactive state complexed with members of the NF-kappa-B inhibitor (I-kappa-B) family. In a conventional activation pathway, I-kappa-B is phosphorylated by I-kappa-B kinases (IKKs) in response to different activators, subsequently degraded thus liberating the active NF-kappa-B complex which translocates to the nucleus. NF-kappa-B heterodimeric p65-p50 and p65-c-Rel complexes are transcriptional activators. The NF-kappa-B p65-p65 complex appears to be involved in invasion-mediated activation of IL-8 expression. The inhibitory effect of I-kappa-B upon NF-kappa-B in the cytoplasm is exerted primarily through the interaction with p65. p65 shows a weak DNA-binding site which could contribute directly to DNA binding in the NF-kappa-B complex. Associates with chromatin at the NF-kappa-B promoter region via association with DDX1.

**配列類似性**      Contains 1 RHD (Rel-like) domain.

**ドメイン**      the 9aaTAD motif is a transactivation domain present in a large number of yeast and animal transcription factors.

**翻訳後修飾**      Ubiquitinated, leading to its proteasomal degradation. Degradation is required for termination of NF-kappa-B response.

Monomethylated at Lys-310 by SETD6. Monomethylation at Lys-310 is recognized by the ANK repeats of EHMT1 and promotes the formation of repressed chromatin at target genes, leading to down-regulation of NF-kappa-B transcription factor activity. Phosphorylation at Ser-311 disrupts the interaction with EHMT1 without preventing monomethylation at Lys-310 and relieves the repression of target genes.

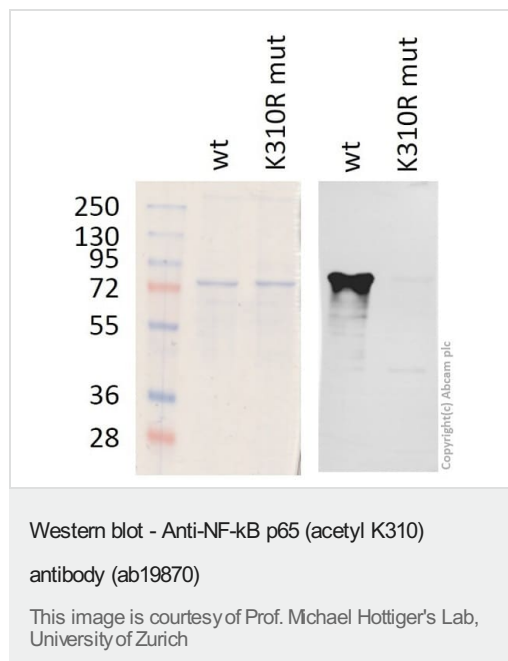
Phosphorylation at Ser-311 disrupts the interaction with EHMT1 and promotes transcription factor activity (By similarity). Phosphorylation on Ser-536 stimulates acetylation on Lys-310 and interaction with CBP; the phosphorylated and acetylated forms show enhanced transcriptional activity.

Reversibly acetylated; the acetylation seems to be mediated by CBP, the deacetylation by HDAC3. Acetylation at Lys-122 enhances DNA binding and impairs association with NFKBIA. Acetylation at Lys-310 is required for full transcriptional activity in the absence of effects on DNA binding and NFKBIA association. Acetylation can also lower DNA-binding and results in nuclear export. Interaction with BRMS1 promotes deacetylation of 'Lys-310'.

## 細胞内局在

Nucleus. Cytoplasm. Nuclear, but also found in the cytoplasm in an inactive form complexed to an inhibitor (I-kappa-B). Colocalized with RELA in the nucleus upon TNF-alpha induction.

## 画像



**Lanes 1-2 :** Coomassie stain

**Lanes 3-4 :** Anti-NF-kB p65 (acetyl K310) antibody (ab19870) at 1/500 dilution

**Lanes 1 & 3 :** Acetylated p65 protein

**Lanes 2 & 4 :** K310R mutant protein

Lysates/proteins at 2 µg per lane.

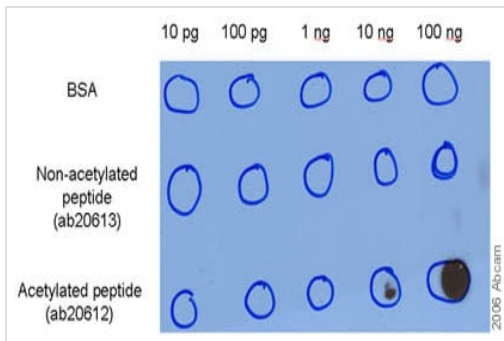
### Secondary

**Lanes 3-4 :** IRDye® 800CW Goat anti-Rabbit IgG (H + L) at 1/15000 dilution

**Predicted band size:** 65 kDa

**Observed band size:** 75kDa

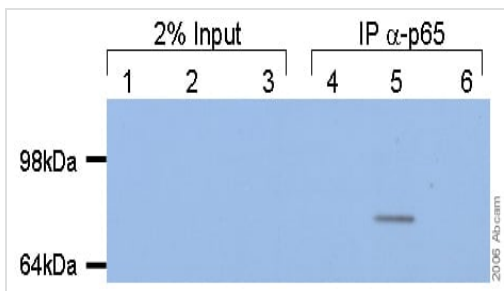
The p65 band runs higher in this blot because the protein contains a myc-tag.



Dot Blot - Anti-NF-kB p65 (acetyl K310) antibody (ab19870)

This image is courtesy of Christine Buerki and Karin Rothgiesser, University of Zurich, Switzerland

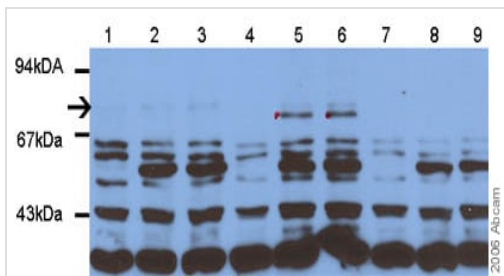
Rabbit polyclonal to NF-kB p65 (acetyl K310) (ab19870; 2.5µg/ml) in 1% non-fat milk TBS-T incubated for 3h at room temperature. Exposure time: 75 min normal ECL. This Dot blot demonstrates that ab19870 recognized upto 10ng of purified peptide on a PVDF membrane.



Immunoprecipitation - Anti-NF-kB p65 (acetyl K310) antibody (ab19870)

This image is courtesy of Christine Buerki and Karin Rothgiesser, University of Zurich, Switzerland

Western Blot with ab19870 after p65 Immunoprecipitation: rabbit polyclonal to NF-kB p65 (acetyl K310) (ab19870; 2.5µg/ml) in 1% non-fat milk TBS-T incubated for 3 hours at room temperature. Exposure time: 1 min normal ECL. Tested samples: nuclear extracts (180 µg) of immortalized p65<sup>-/-</sup> mouse cells, complemented with the empty vector (pRRL), wild-type p65 (Wt) and non-acetylatable K310 (K310R). The samples tested were treated with deacetylase inhibitors HDACi (TSA + Nicotinamide) and TNF-alpha. The samples were immunoprecipitated with 2µg of alpha-p65 and subsequently analysed by Western blot with Rabbit polyclonal to NF-kB p65 (acetyl K310) (ab19870). Predicted band size = 65kDa, Observed band size = 75kDa. The p65 band runs higher in this SDS-PAGE blot as it contains a myc-tag.



Western blot - Anti-NF-kB p65 (acetyl K310) antibody (ab19870)

This image is courtesy of Christine Buerki and Karin Rothgiesser, University of Zurich, Switzerland

**All lanes :** Anti-NF-kB p65 (acetyl K310) antibody (ab19870) at 2.5 µg/ml

- Lane 1 :** pRRL untreated
- Lane 2 :** pRRL HDACi
- Lane 3 :** pRRL HDACi + TNF
- Lane 4 :** Wt untreated
- Lane 5 :** Wt HDACi
- Lane 6 :** Wt HDACi + phorbol myristate acetate
- Lane 7 :** K310R untreated
- Lane 8 :** K310R HDACi
- Lane 9 :** K310R HDACi + phorbol myristate acetate

Lysates/proteins at 75 µg per lane.

Developed using the ECL technique.

**Predicted band size:** 65 kDa

**Observed band size:** 75 kDa

**Exposure time:** 1 hour

ab19870 recognizes Rabbit polyclonal to NF-κB p65 (acetyl K310) specifically at ~75kDa (indicated by the arrow) in this SDS-PAGE blot. The p65 band runs higher than 65kDa in this SDS-PAGE blot as it contains a myc-tag. We are sure that the band at ~75kDa is p65 since p65 specific antibodies detect the same band in IP and WB and there is no signal in the p65 knock-out cell line with ab19870. A number of additional bands are recognized by ab19870 when tested with endogenous p65 from whole cell extracts, we do not know the identity of these bands.

Tested samples: nuclear extracts (75µg) of immortalized p65<sup>-/-</sup> mouse cells, complemented with the empty ve



Western blot - Anti-NF-κB p65 (acetyl K310) antibody (ab19870)

Anti-NF-κB p65 (acetyl K310) antibody (ab19870) at 1 µg/ml + Lung (Rat) Tissue Lysate at 10 µg

### Secondary

Goat Anti-Rabbit IgG H&L (HRP) preadsorbed ([ab97080](#)) at 1/5000 dilution

Performed under reducing conditions.

**Predicted band size:** 65 kDa

**Observed band size:** 72 kDa

**Additional bands at:** 15 kDa. We are unsure as to the identity of these extra bands.

**Exposure time:** 4 minutes

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

### **Our Abpromise to you: Quality guaranteed and expert technical support**

---

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
  
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit <https://www.abcam.co.jp/abpromise> or contact our technical team.

### **Terms and conditions**

---

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors