

## NFκB-p65 (Acetyl Lys310) Rabbit pAb

CatalogNo: YK0018

Orthogonal Validated 

### Key Features

#### Host Species

- Rabbit

#### Reactivity

- Human, Mouse

#### Applications

- WB, IHC, IF, ELISA

#### MW

- 65kD (Observed)

#### Isotype

- IgG

### Recommended Dilution Ratios

WB 1:500-2000

IHC 1:50-300

IF 1:50-300

### Storage

#### Storage\*

-15°C to -25°C/1 year (Do not lower than -25°C)

#### Formulation

Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

### Basic Information

#### Clonality

Polyclonal

### Immunogen Information

#### Immunogen

The antiserum was produced against synthesized peptide derived from human NF-κappaB p65 around the acetylated site of Lys310. AA range: 275-324

#### Specificity

Acetyl-NFκB-p65 (K310) Polyclonal Antibody detects endogenous levels of NFκB-p65 protein only when acetylated at K310. The name of modified sites may be influenced by many factors, such as species (the modified site was not originally found in human samples) and the change of protein sequence (the previous protein sequence is incomplete, and the protein sequence may be prolonged with the development of protein sequencing technology). When naming, we will use the "numbers" in historical reference to keep the sites consistent with the reports. The antibody binds to the following modification sequence (lowercase letters are modification sites): TFKSI

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## | Target Information

**Gene name**            RELA

**Protein Name**        Transcription factor p65

Organism	Gene ID	UniProt ID
Human	<a href="#">5970</a> ;	<a href="#">Q04206</a> ;
Mouse	<a href="#">19697</a> ;	<a href="#">Q04207</a> ;

**Cellular Localization**        Nucleus . Cytoplasm . Nuclear, but also found in the cytoplasm in an inactive form complexed to an inhibitor (I-kappa-B) (PubMed:1493333). Colocalized with DDX1 in the nucleus upon TNF-alpha induction (PubMed:19058135). Colocalizes with GFI1 in the nucleus after LPS stimulation (PubMed:20547752). Translocation to the nucleus is impaired in L.monocytogenes infection (PubMed:20855622). .

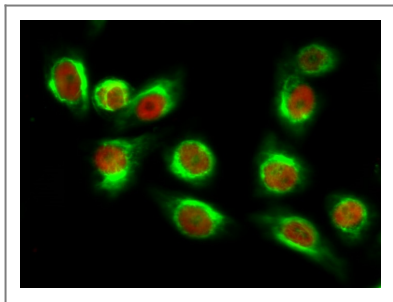
**Tissue specificity**    Bone,Colon,Pancreas,Placenta,

## Function

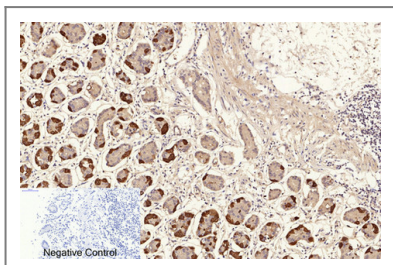
Function: NF-kappa-B is a pleiotropic transcription factor which is present in almost all cell types and is involved in many biological processes such as inflammation, immunity, differentiation, cell growth, tumorigenesis and apoptosis. NF-kappa-B is a homo- or heterodimeric complex formed by the Rel-like 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 invasin-mediated activation of IL-8 expression. The inhibitory effect of I-kappa-B upon NF-kappa-B 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. PTM: Phosphorylation on 'Ser-536' stimulates acetylation on 'Lys-310' and interaction with CBP; the phosphorylated and acetylated forms show enhanced transcriptional activity. PTM: 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. PTM: Ubiquitinated, leading to its proteasomal degradation. Degradation is required for termination of NF-kappa-B response. similarity: Contains 1 RHD (Rel-like) domain. subcellular location: Nuclear, but also found in the cytoplasm in an inactive form complexed to an inhibitor (I-kappa-B). subunit: Component of the NF-kappa-B p65-p50 complex. Component of the NF-kappa-B p65-c-Rel complex. Homodimer; component of the NF-kappa-B p65-p65 complex. Component of the NF-kappa-B p65-p52 complex. May interact with ETHE1. Binds AES and TLE1. Interacts with TP53BP2. Binds to and is phosphorylated by the activated form of either RPS6KA4 or RPS6KA5. Interacts with ING4 and this interaction may be indirect. Interacts with CARM1, USP48 and UNC5CL. Interacts with IRAK1BP1 (By similarity). Interacts with NFKBID (By similarity). Interacts with NFKBIA. Interacts with GSK3B. Interacts with NFKBIB (By similarity). Interacts with NFKBIE. Interacts with NFKBIZ (By similarity). Part of a 70-90 kDa complex at least consisting of CHUK, IKBKB, NFKBIA, RELA, IKBKAP and MAP3K14. Interacts with HDAC3; HDAC3 mediates the deacetylation of RELA. Interacts with HDAC1; the interaction requires non-phosphorylated RELA. Interacts with CBP; the interaction requires phosphorylated RELA. Interacts (phosphorylated at 'Thr-254') with PIN1; the interaction inhibits p65 binding to NFKBIA. Interacts with SOCS1. Interacts with UXT. Interacts with MTDH. Interacts with human respiratory syncytial virus (HRSV) protein M2-1.

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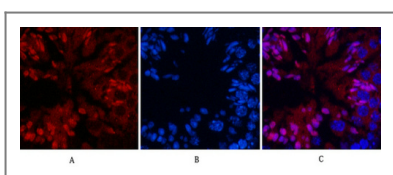
## | Validation Data



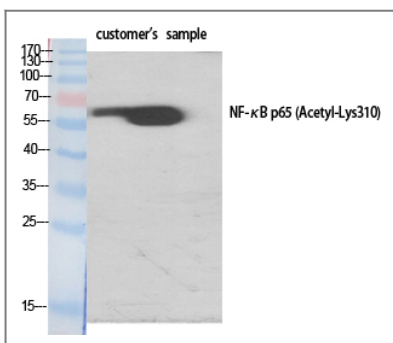
Immunofluorescence analysis of Hela cell. 1, NF-kB-p65 (Acetyl Lys310) Polyclonal Antibody (red) was diluted at 1:200 (4°C overnight). 2, Goat Anti Rabbit Alexa Fluor 594 Catalog: RS3611 was diluted at 1:1000 (room temperature, 50min). Goat Anti Mouse Alexa Fluor 488 Catalog: RS3208 was diluted at 1:1000 (room temperature, 50min).



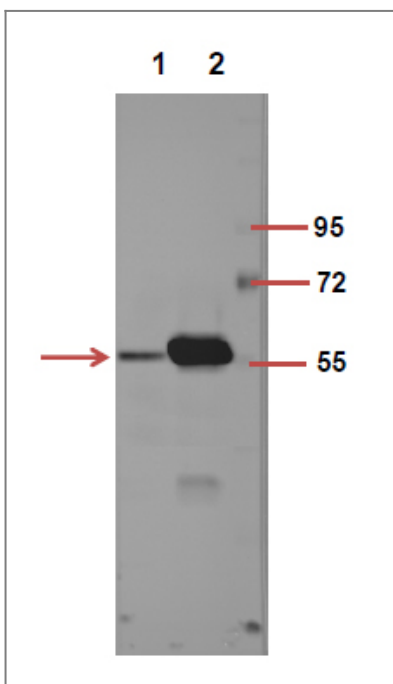
Immunohistochemical analysis of paraffin-embedded Human-stomach tissue. 1, NF-kB-p65 (Acetyl Lys310) Polyclonal Antibody was diluted at 1:200 (4°C overnight). 2, Sodium citrate pH 6.0 was used for antibody retrieval (>98°C, 20min). 3, Secondary antibody was diluted at 1:200 (room temperature, 30min). Negative control was used by secondary antibody only.



Immunofluorescence analysis of Mouse-testis tissue. 1, NF-kB-p65 (Acetyl Lys310) Polyclonal Antibody (red) was diluted at 1:200 (4°C overnight). 2, Cy3 labeled Secondary antibody was diluted at 1:300 (room temperature, 50min). 3, Picture B: DAPI (blue) 10min. Picture A: Target. Picture B: DAPI. Picture C: merge of A+B



Western Blot analysis of various cells using Acetyl-NF-kB-p65 (K310) Polyclonal Antibody diluted at 1:1000. Secondary antibody (catalog#: RS0002) was diluted at 1:20000



The picture was kindly provided by our customer, antibody was diluted at 1:500

## | Contact information

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Please scan the QR code  
to access additional  
product information:  
**NFκB-p65 (Acetyl  
Lys310) Rabbit pAb**

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