

# NFκB-p65 (phospho Ser536) Polyclonal Antibody

Catalog # AP67123

## Product Information

Application	WB, IHC-P, IF, IP
Primary Accession	<a href="#">Q04206</a>
Reactivity	Human, Mouse, Rat, Monkey
Host	Rabbit
Clonality	Polyclonal
Calculated MW	60219

## Additional Information

Gene ID	5970
Other Names	RELA; NFKB3; Transcription factor p65; Nuclear factor NF-kappa-B p65 subunit; Nuclear factor of kappa light polypeptide gene enhancer in B-cells 3
Dilution	WB~~1:1000 IHC-P~~N/A IF~~IF: 1:50-200 Western Blot: 1/500 - 1/2000. Immunohistochemistry: 1/100 - 1/300. Immunoprecipitation: 2-5 ug/mg lysate. ELISA: 1/10000. Not yet tested in other applications. IP~~N/A
Format	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide.
Storage Conditions	-20°C

## Protein Information

Name	RELA
Synonyms	NFKB3
Function	NF-kappa-B is a pleiotropic transcription factor present in almost all cell types and is the endpoint of a series of signal transduction events that are initiated by a vast array of stimuli related to 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. The heterodimeric RELA-NFKB1 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. The NF-kappa-B heterodimeric RELA-NFKB1 and RELA-REL complexes, for instance, function as transcriptional activators. 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. The inhibitory effect of I- kappa-B on NF-kappa-B through retention in the cytoplasm is exerted primarily through the interaction with RELA. RELA shows a weak DNA- binding site which could contribute directly to DNA binding in the NF- kappa-B complex. Besides its activity as a direct transcriptional activator, it is also able to modulate promoters accessibility to transcription factors and thereby indirectly regulate gene expression. Associates with chromatin at the NF-kappa-B promoter region via association with DDX1. Essential for cytokine gene expression in T- cells (PubMed:[15790681](#)). The NF-kappa-B homodimeric RELA-RELA complex appears to be involved in invasin-mediated activation of IL-8 expression. Key transcription factor regulating the IFN response during SARS-CoV-2 infection (PubMed:[33440148](#)).

### Cellular Location

Nucleus. Cytoplasm. Note=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)

## Background

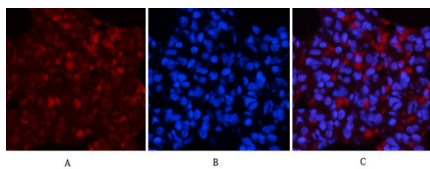
---

NF-kappa-B is a pleiotropic transcription factor present in almost all cell types and is the endpoint of a series of signal transduction events that are initiated by a vast array of stimuli related to 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. The heterodimeric RELA- NFKB1 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. The NF-kappa-B heterodimeric RELA-NFKB1 and RELA-REL complexes, for instance, function as transcriptional activators. 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. The inhibitory effect of I-kappa-B on NF-kappa-B through retention in the cytoplasm is exerted primarily through the interaction with RELA. RELA shows a weak DNA-binding site which could contribute directly to DNA binding in the NF-kappa-B complex. Beside its activity as a direct transcriptional activator, it is also able to modulate promoters accessibility to transcription factors and thereby indirectly regulate gene expression. Associates with chromatin at the NF-kappa-B promoter region via association with DDX1. Essential for cytokine gene expression in T-cells (PubMed:[15790681](#)). The NF-kappa-B homodimeric RELA-RELA complex appears to be involved in invasin- mediated activation of IL-8 expression.

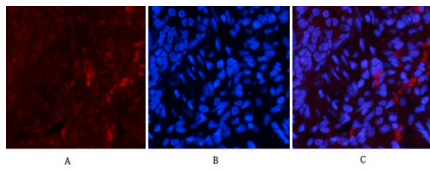
## Images

---

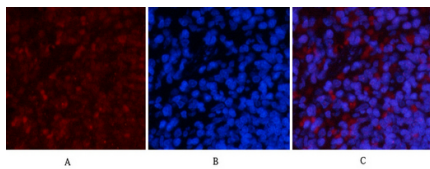
Immunofluorescence analysis of rat-lung tissue.  
1,NFkB-p65 (phospho Ser536) Polyclonal Antibody(red)  
was diluted at 1:200(4°C,overnight). 2, Cy3 labeled  
Secondary antibody was diluted at 1:300(room



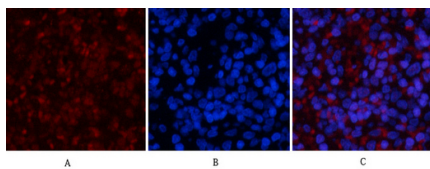
temperature, 50min).3, Picture B: DAPI(blue) 10min.  
Picture A:Target. Picture B: DAPI. Picture C: merge of A+B



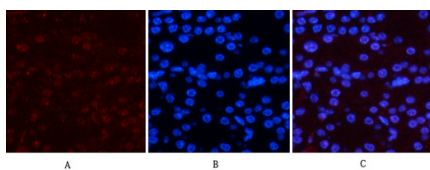
Immunofluorescence analysis of rat-lung tissue.  
1,NFkB-p65 (phospho Ser536) Polyclonal Antibody(red)  
was diluted at 1:200(4°C,overnight). 2, Cy3 labeled  
Secondary antibody was diluted at 1:300(room  
temperature, 50min).3, Picture B: DAPI(blue) 10min.  
Picture A:Target. Picture B: DAPI. Picture C: merge of A+B



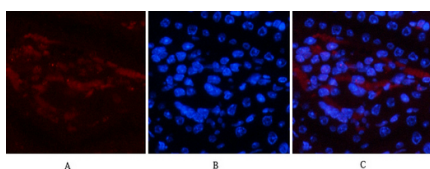
Immunofluorescence analysis of rat-spleen tissue.  
1,NFkB-p65 (phospho Ser536) Polyclonal Antibody(red)  
was diluted at 1:200(4°C,overnight). 2, Cy3 labeled  
Secondary antibody was diluted at 1:300(room  
temperature, 50min).3, Picture B: DAPI(blue) 10min.  
Picture A:Target. Picture B: DAPI. Picture C: merge of A+B



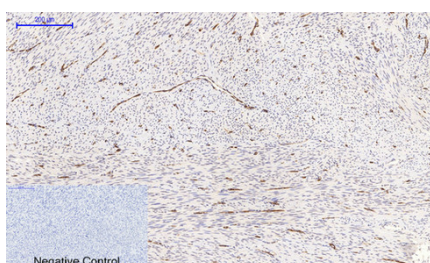
Immunofluorescence analysis of rat-spleen tissue.  
1,NFkB-p65 (phospho Ser536) Polyclonal Antibody(red)  
was diluted at 1:200(4°C,overnight). 2, Cy3 labeled  
Secondary antibody was diluted at 1:300(room  
temperature, 50min).3, Picture B: DAPI(blue) 10min.  
Picture A:Target. Picture B: DAPI. Picture C: merge of A+B



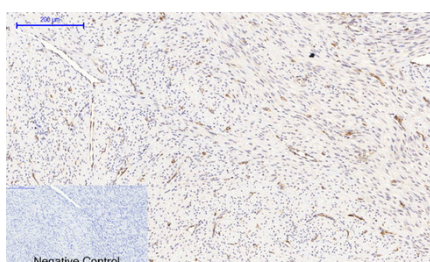
Immunofluorescence analysis of mouse-kidney tissue.  
1,NFkB-p65 (phospho Ser536) Polyclonal Antibody(red)  
was diluted at 1:200(4°C,overnight). 2, Cy3 labeled  
Secondary antibody was diluted at 1:300(room  
temperature, 50min).3, Picture B: DAPI(blue) 10min.  
Picture A:Target. Picture B: DAPI. Picture C: merge of A+B



Immunofluorescence analysis of mouse-kidney tissue.  
1,NFkB-p65 (phospho Ser536) 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

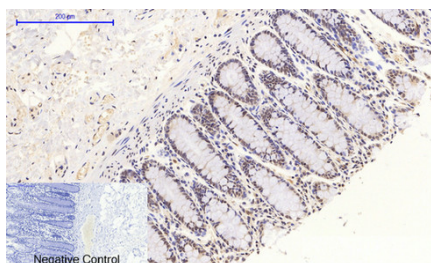


Immunohistochemical analysis of paraffin-embedded  
Human-uterus tissue. 1,NFkB-p65 (phospho Ser536)  
Polyclonal Antibody was diluted at 1:200(4°C,overnight).  
2, Sodium citrate pH 6.0 was used for antibody  
retrieval(>98°C,20min). 3,Secondary antibody was diluted  
at 1:200(room tempeRature, 30min). Negative control  
was used by secondary antibody only.

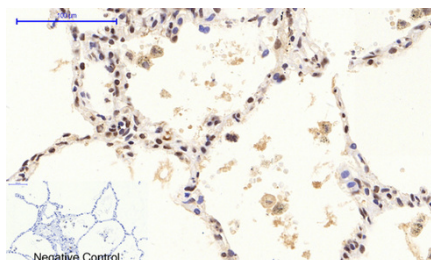


Immunohistochemical analysis of paraffin-embedded  
Human-uterus-cancer tissue. 1,NFkB-p65 (phospho  
Ser536) Polyclonal Antibody was diluted at  
1:200(4°C,overnight). 2, Sodium citrate pH 6.0 was used  
for antibody retrieval(>98°C,20min). 3,Secondary  
antibody was diluted at 1:200(room tempeRature,  
30min). Negative control was used by secondary antibody  
only.

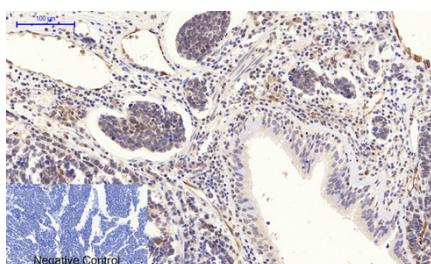




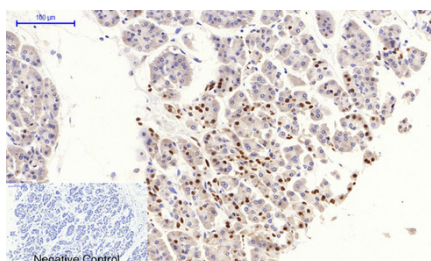
Immunohistochemical analysis of paraffin-embedded Human-colon tissue. 1,NFκB-p65 (phospho Ser536) Polyclonal Antibody was diluted at 1:200(4°C,overnight). 2, Sodium citrate pH 6.0 was used for antibody retrieval(>98°C,20min). 3,Secondary antibody was diluted at 1:200(room temperature, 30min). Negative control was used by secondary antibody only.



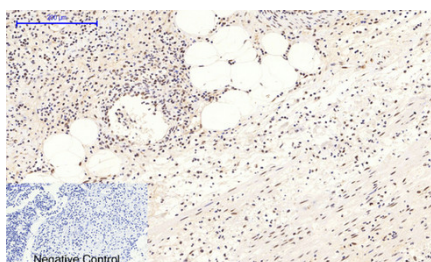
Immunohistochemical analysis of paraffin-embedded Human-lung tissue. 1,NFκB-p65 (phospho Ser536) Polyclonal Antibody was diluted at 1:200(4°C,overnight). 2, Sodium citrate pH 6.0 was used for antibody retrieval(>98°C,20min). 3,Secondary antibody was diluted at 1:200(room temperature, 30min). Negative control was used by secondary antibody only.



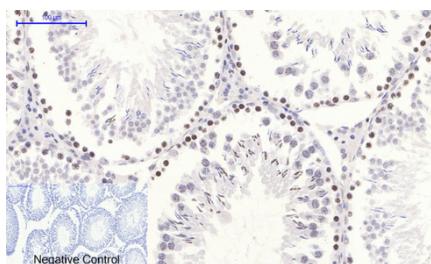
Immunohistochemical analysis of paraffin-embedded Human-lung-cancer tissue. 1,NFκB-p65 (phospho Ser536) Polyclonal Antibody was diluted at 1:200(4°C,overnight). 2, Sodium citrate pH 6.0 was used for antibody retrieval(>98°C,20min). 3,Secondary antibody was diluted at 1:200(room temperature, 30min). Negative control was used by secondary antibody only.



Immunohistochemical analysis of paraffin-embedded Human-stomach-cancer tissue. 1,NFκB-p65 (phospho Ser536) 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.

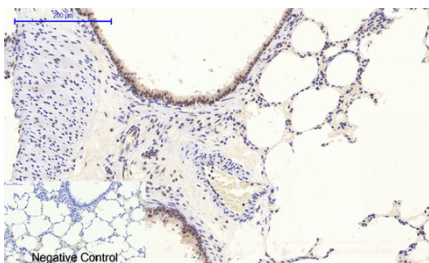


Immunohistochemical analysis of paraffin-embedded Human-Appendix tissue. 1,NFκB-p65 (phospho Ser536) Polyclonal Antibody was diluted at 1:200(4°C,overnight). 2, Sodium citrate pH 6.0 was used for antibody retrieval(>98°C,20min). 3,Secondary antibody was diluted at 1:200(room temperature, 30min). Negative control was used by secondary antibody only.

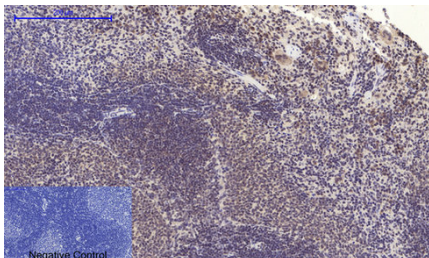


Immunohistochemical analysis of paraffin-embedded Rat-testis tissue. 1,NFκB-p65 (phospho Ser536) Polyclonal Antibody was diluted at 1:200(4°C,overnight). 2, Sodium citrate pH 6.0 was used for antibody retrieval(>98°C,20min). 3,Secondary antibody was diluted at 1:200(room temperature, 30min). Negative control was used by secondary antibody only.

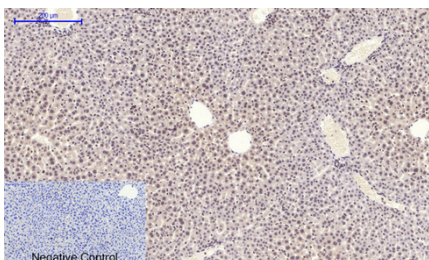
Immunohistochemical analysis of paraffin-embedded Rat-lung tissue. 1,NFκB-p65 (phospho Ser536) Polyclonal Antibody was diluted at 1:200(4°C,overnight). 2, Sodium citrate pH 6.0 was used for antibody retrieval(>98°C,20min). 3,Secondary antibody was diluted



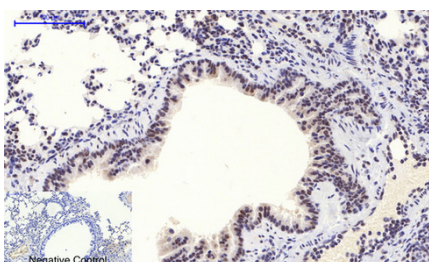
at 1:200(room temperature, 30min). Negative control was used by secondary antibody only.



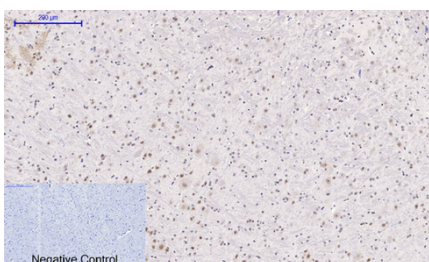
Immunohistochemical analysis of paraffin-embedded Rat-spleen tissue. 1,NFkB-p65 (phospho Ser536) Polyclonal Antibody was diluted at 1:200(4°C,overnight). 2, Sodium citrate pH 6.0 was used for antibody retrieval(>98°C,20min). 3,Secondary antibody was diluted at 1:200(room temperature, 30min). Negative control was used by secondary antibody only.



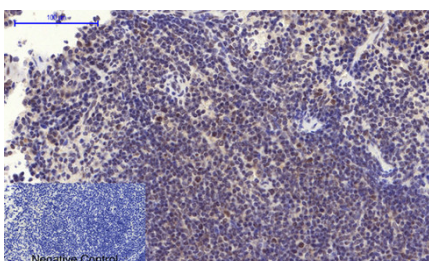
Immunohistochemical analysis of paraffin-embedded Mouse-liver tissue. 1,NFkB-p65 (phospho Ser536) Polyclonal Antibody was diluted at 1:200(4°C,overnight). 2, Sodium citrate pH 6.0 was used for antibody retrieval(>98°C,20min). 3,Secondary antibody was diluted at 1:200(room temperature, 30min). Negative control was used by secondary antibody only.



Immunohistochemical analysis of paraffin-embedded Mouse-lung tissue. 1,NFkB-p65 (phospho Ser536) 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.



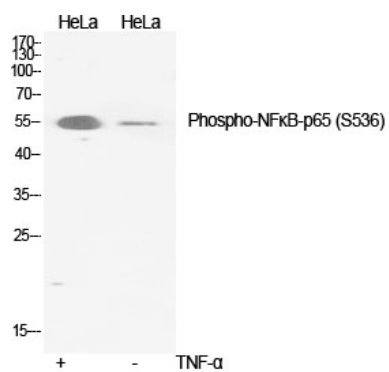
Immunohistochemical analysis of paraffin-embedded Mouse-brain tissue. 1,NFkB-p65 (phospho Ser536) Polyclonal Antibody was diluted at 1:200(4°C,overnight). 2, Sodium citrate pH 6.0 was used for antibody retrieval(>98°C,20min). 3,Secondary antibody was diluted at 1:200(room temperature, 30min). Negative control was used by secondary antibody only.



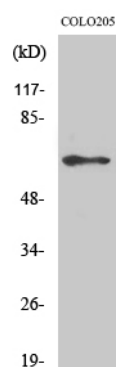
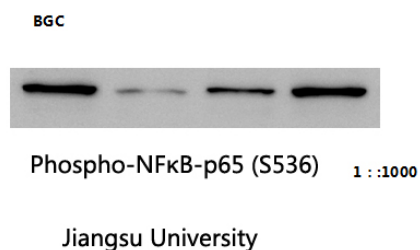
Immunohistochemical analysis of paraffin-embedded Mouse-spleen tissue. 1,NFkB-p65 (phospho Ser536) Polyclonal Antibody was diluted at 1:200(4°C,overnight). 2, Sodium citrate pH 6.0 was used for antibody retrieval(>98°C,20min). 3,Secondary antibody was diluted at 1:200(room temperature, 30min). Negative control was used by secondary antibody only.

Western Blot analysis of various cells using Phospho-NFkB-p65 (S536) Polyclonal Antibody diluted at 1 : 2000

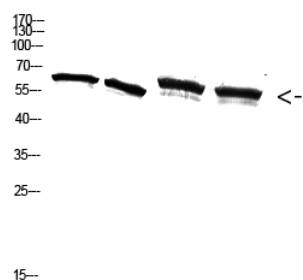




The picture was kindly provided by our customer



Western Blot analysis of COLO205 cells using  
Phospho-NFκB-p65 (S536) Polyclonal Antibody diluted at  
1 : 2000



Western Blot analysis of A549 3T3 293T K562 cells using  
Antibody diluted at 2000. Secondary antibody was diluted  
at 1:20000

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.