

## ARG58268 anti-NFkB p65 phospho (Ser276) antibody

Package: 50 µl  
Store at: -20°C

### Summary

Product Description	Rabbit Polyclonal antibody recognizes NFkB p65 phospho (Ser276)
Tested Reactivity	Hu, Rat
Tested Application	ICC/IF, IHC-P, WB
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	NFkB p65
Species	Human
Immunogen	Phospho specific peptide peptide around Ser276 of Human NFkB p65 (NP_068810.3).
Conjugation	Un-conjugated
Alternate Names	Nuclear factor NF-kappa-B p65 subunit; Nuclear factor of kappa light polypeptide gene enhancer in B-cells 3; NFKB3; p65; Transcription factor p65

### Application Instructions

Application table	Application	Dilution
	ICC/IF	1:20 - 1:50
	IHC-P	1:50 - 1:100
	WB	1:500 - 1:2000
Application Note	* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.	
Positive Control	HeLa + TNF alpha	
Observed Size	60 kDa	

### Properties

Form	Liquid
Purification	Affinity purified.
Buffer	PBS (pH 7.3), 0.02% Sodium azide and 50% Glycerol.
Preservative	0.02% Sodium azide
Stabilizer	50% Glycerol
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.

Note For laboratory research only, not for drug, diagnostic or other use.

## Bioinformation

Gene Symbol	RELA
Gene Full Name	v-rel avian reticuloendotheliosis viral oncogene homolog A
Background	NFκB is a ubiquitous transcription factor involved in several biological processes. It is held in the cytoplasm in an inactive state by specific inhibitors. Upon degradation of the inhibitor, NF-kappa-B moves to the nucleus and activates transcription of specific genes. NF-kappa-B is composed of NFKB1 or NFKB2 bound to either REL, RELA, or RELB. The most abundant form of NF-kappa-B is NFKB1 complexed with the product of this gene, RELA. Four transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Sep 2011]
Function	NFκB 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-RELB 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. [UniProt]
Highlight	Related products: <a href="#">NFκB p65 antibodies</a> ; <a href="#">NFκB p65 Duos / Panels</a> ; <a href="#">Anti-Rabbit IgG secondary antibodies</a> ; Related news: <a href="#">Exploring Antiviral Immune Response</a>
Research Area	Cancer antibody; Cell Biology and Cellular Response antibody; Cell Death antibody; Gene Regulation antibody; Immune System antibody; Metabolism antibody; Microbiology and Infectious Disease antibody; Neuroscience antibody; Signaling Transduction antibody; NFκB nuclear translocation Study antibody; Inflammation Study antibody
Calculated Mw	60 kDa
PTM	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 (By similarity).  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. Phosphorylation at Ser-276 by RPS6KA4 and RPS6KA5 promotes its transactivation and transcriptional activities.

Reversibly acetylated; the acetylation seems to be mediated by CBP, the deacetylation by HDAC3 and SIRT2. 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 at Lys-310 promotes interaction with BRD4. Acetylation can also lower DNA-binding and results in nuclear export. Interaction with BRMS1 promotes deacetylation of Lys-310. Lys-310 is deacetylated by SIRT2.

S-nitrosylation of Cys-38 inactivates the enzyme activity.

Sulfhydration at Cys-38 mediates the anti-apoptotic activity by promoting the interaction with RPS3 and activating the transcription factor activity.

Sumoylation by PIAS3 negatively regulates DNA-bound activated NF-kappa-B.

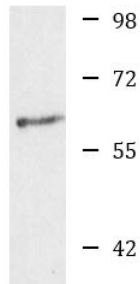
Proteolytically cleaved within a conserved N-terminus region required for base-specific contact with DNA in a CPEN1-mediated manner, and hence inhibits NF-kappa-B transcriptional activity (PubMed:18212740). [UniProt]

Cellular Localization

Cytoplasm, Nucleus. [UniProt]

## Images

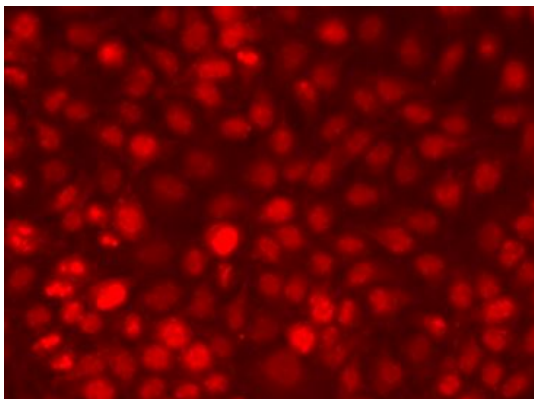
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HeLa + TNF alpha

### ARG58268 anti-NFkB p65 phospho (Ser276) antibody WB image

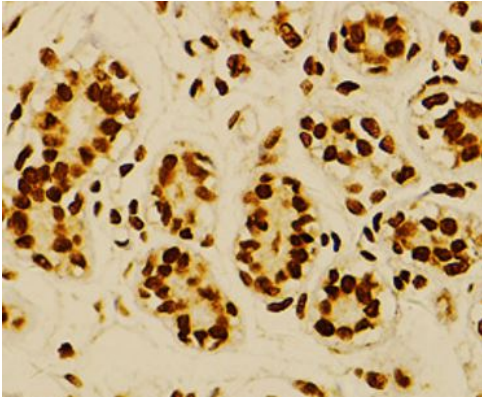
Western blot: 25 µg of HeLa cells were treated by TNF alpha (20 ng/ml) for 30 min. The blot was stained with ARG58268 anti-NFkB p65 phospho (Ser276) antibody.



### ARG58268 anti-NFkB p65 phospho (Ser276) antibody ICC/IF image

Immunofluorescence: U2OS cells stained with ARG58268 anti-NFkB p65 phospho (Ser276) antibody at 1:100 dilution.

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ARG58268 anti-NFkB p65 phospho (Ser276) antibody IHC-P image

Immunohistochemistry: Paraffin-embedded Human breast cancer stained with ARG58268 anti-NFkB p65 phospho (Ser276) antibody at 1:100 dilution.