

**KD-Validated Anti-NF- $\kappa$ B p65 Rabbit Monoclonal Antibody**  
**Rabbit monoclonal antibody**  
**Catalog # AGI1846****Specification****KD-Validated Anti-NF- $\kappa$ B p65 Rabbit Monoclonal Antibody - Product Information**

Application	WB, FC, ICC
Primary Accession	<a href="#">Q04206</a>
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Isotype	Rabbit IgG
Calculated MW	Predicted, 60 kDa , observed, 65 kDa KDa
Gene Name	RELA
Aliases	RELA; RELA Proto-Oncogene, NF-KB Subunit; Nuclear Factor Of Kappa Light Polypeptide Gene Enhancer In B-Cells; NFKB3; P65; V-Rel Avian Reticuloendotheliosis Viral Oncogene Homolog A; Nuclear Factor NF-Kappa-B P65 Subunit; Transcription Factor P65; NF-Kappa-B Transcription Factor P65; NF-Kappa-B; P65delta3; AIF3BL3; CMCU
Immunogen	A synthesized peptide derived from human NF- $\kappa$ B p65

**KD-Validated Anti-NF- $\kappa$ B p65 Rabbit Monoclonal Antibody - Additional Information**

Gene ID	5970
<b>Other Names</b>	
Transcription factor p65, Nuclear factor NF-kappa-B p65 subunit, Nuclear factor of kappa light polypeptide gene enhancer in B-cells 3, RELA, NFKB3	

**KD-Validated Anti-NF- $\kappa$ B p65 Rabbit Monoclonal Antibody - 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:<a href="http://www.uniprot.org/citations/15790681" target="\_blank">15790681</a>). 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:<a href="http://www.uniprot.org/citations/33440148" target="\_blank">33440148</a>).

#### **Cellular Location**

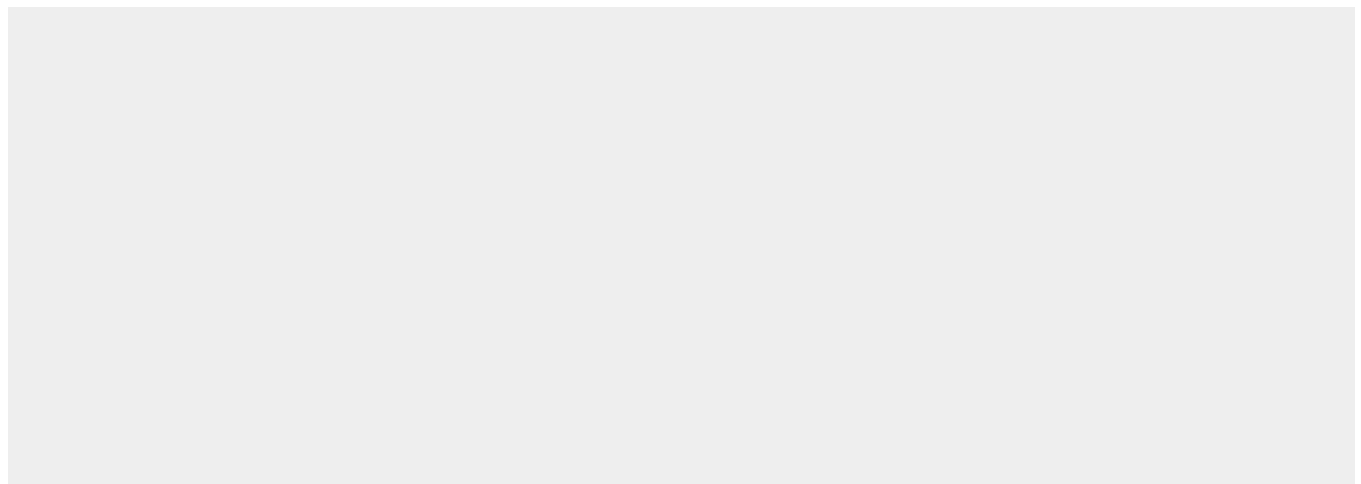
Nucleus. Cytoplasm. Note=Nuclear, but also found in the cytoplasm in an inactive form complexed to an inhibitor (I-kappa-B) (PubMed:1493333). Colocalized with DDX1 in the nucleus upon TNF-alpha induction (PubMed:19058135). Colocalizes with GFI1 in the nucleus after LPS stimulation (PubMed:20547752).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

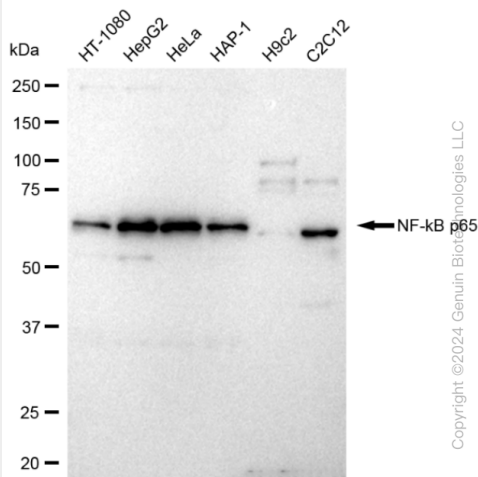
#### **KD-Validated Anti-NF-kB p65 Rabbit Monoclonal Antibody - Protocols**

Provided below are standard protocols that you may find useful for product applications.

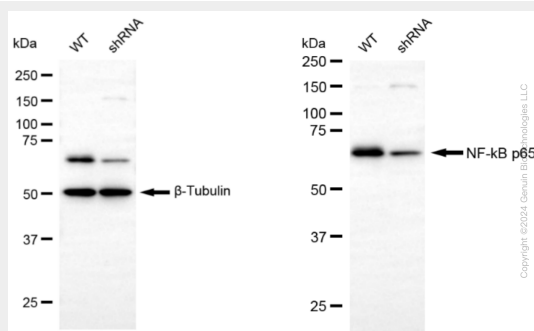
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

#### **KD-Validated Anti-NF-kB p65 Rabbit Monoclonal Antibody - Images**

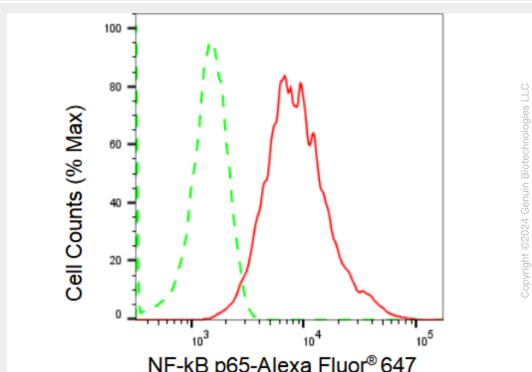




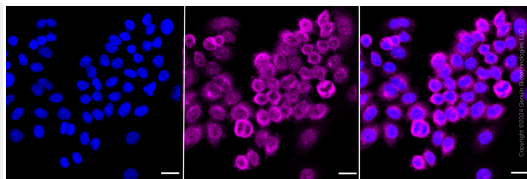
Western blotting analysis using anti-NF-kB p65 antibody (Cat#AGI1846). Total cell lysates (30  $\mu$ g) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with anti-NF-kB p65 antibody (Cat#AGI1846, 1:10,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



Western blotting analysis using anti-NF-kB p65 antibody (Cat#AGI1846). NF-kB p65 expression in wild type (WT) and NF-kB p65 shRNA knockdown (KD) HT-1080 cells with 30  $\mu$ g of total cell lysates. Hsp90  $\alpha$  serves as a loading control. The blot was incubated with anti-NF-kB p65 antibody (Cat#AGI1846, 1:10,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



Flow cytometric analysis of NF-kB p65 expression in HepG2 cells using NF-kB p65 antibody (Cat#AGI1846, 1:2,000). Green, isotype control; red, NF-kB p65.



Immunocytochemical staining of HepG2 cells with NF-kB p65 antibody (Cat#AGI1846, 1:1,000). Nuclei were stained blue with DAPI; NF-kB p65 was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: High. Scale bar: 20  $\mu$ m.