

**NFkB p65 Antibody (Clone 2A12A7)**  
**Mouse Monoclonal Antibody**  
**Catalog # ABV10007****Specification**

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**NFkB p65 Antibody (Clone 2A12A7) - Product Information**

|                   |                           |
|-------------------|---------------------------|
| Application       | WB                        |
| Primary Accession | <a href="#">Q04207</a>    |
| Other Accession   | <a href="#">NP_033071</a> |
| Reactivity        | Human, Mouse, Rat         |
| Host              | Mouse                     |
| Clonality         | Monoclonal                |
| Isotype           | Mouse IgG1                |
| Calculated MW     | 60212                     |

**NFkB p65 Antibody (Clone 2A12A7) - Additional Information****Gene ID** 19697**Application & Usage****Western blot analysis (1-4 µg/ml).**  
**However, the optimal conditions should be**  
**determined individually. A431 cells can be**  
**used as a positive control.****Other Names**

RELA, NFKB3, MGC131774

**Target/Specificity**

NFkB p65

**Antibody Form**

Liquid

**Appearance**

Colorless liquid

**Formulation**

100 µg (200 µg/ml) in PBS containing 1 mg/ml BSA and 1.5 mM sodium azide and 50% glycerol.

**Handling**

The antibody solution should be gently mixed before use.

**Reconstitution & Storage**

-20 °C

**Background Descriptions****Precautions**

NFkB p65 Antibody (Clone 2A12A7) is for research use only and not for use in diagnostic or therapeutic procedures.

## NFkB p65 Antibody (Clone 2A12A7) - 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. 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 (PubMed:<a href="http://www.uniprot.org/citations/29813070" target="\_blank">29813070</a>). Associates with chromatin at the NF-kappa-B promoter region via association with DDX1. Essential for cytokine gene expression in T-cells (By similarity). The NF-kappa-B homodimeric RELA- RELA complex appears to be involved in invasin-mediated activation of IL-8 expression (By similarity).

### Cellular Location

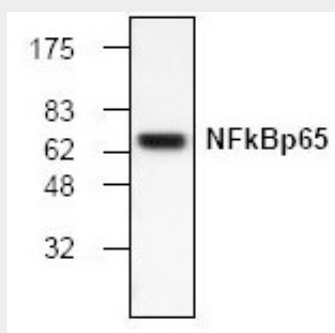
Nucleus. Cytoplasm Note=Nuclear, but also found in the cytoplasm in an inactive form complexed to an inhibitor (I-kappa-B) (PubMed:21131967). Colocalized with DDX1 in the nucleus upon TNF-alpha induction (By similarity) Colocalizes with GFI1 in the nucleus after lipopolysaccharide (LPS) stimulation. {ECO:0000250|UniProtKB:Q04206, ECO:0000269|PubMed:21131967}

## NFkB p65 Antibody (Clone 2A12A7) - 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](#)

## NFkB p65 Antibody (Clone 2A12A7) - Images



Western blot analysis of NFkBp65 expression in Jurkat cell lysate.

#### **NFkB p65 Antibody (Clone 2A12A7) - Background**

NFkB was identified as a sequence specific transcriptional activator that binds to the intronic enhancer of kappa light chain gene in B lymphocytes. NFkB is a heterodimer that consists of a 50 kDa DNA binding subunit (p50) and a 65 kDa transactivation subunit (p65/RelA). Both of these subunits exhibit sequence homology to the protooncogene c-Rel. The p50/p65 heterodimer remains in the cytosol in an inactive form as a complex with its inhibitor, IkB. Upon stimulation of cells by a wide variety of stimuli such as lipopolysaccharide (LPS), pro-inflammatory cytokines, and viral infection. IkB is phosphorylated and degraded by proteasome. The active NFkB heterodimer is translocated into the nucleus and induces gene expression.