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NFkB p65 Antibody
Rabbit Polyclonal Antibody
Catalog # ABV10030

Specification

NFkB p65 Antibody - Product Information

Application	**WB**
Primary Accession	Q04207
Other Accession	NP_033071
Reactivity	**Human, Mouse, Rat**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**60212**

NFkB p65 Antibody - Additional Information

Gene ID 19697

Application & Usage

Western blotting (0.5-4 µg/ml), immunocytochemistry (10-20 µg/ml). However, the optimal conditions should be determined individually. The antibody detects primarily NFkB p65 in samples of human, mouse, and rat origins.

Other Names
RELA, NFKB3, MGC131774

Target/Specificity
NFkB p65

Antibody Form
Liquid

Appearance
Colorless liquid

Formulation
100 µg (0.2 mg/ml) affinity purified rabbit anti-NFkB polyclonal antibody in phosphate buffered saline (PBS), pH 7.2, containing 25% glycerol, 0.5% BSA, 0.01% thimerosal.

Handling
The antibody solution should be gently mixed before use.

Reconstitution & Storage
-20 °C

Background Descriptions

Precautions
NFkB p65 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

NFkB p65 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. 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:29813070). 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 - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation

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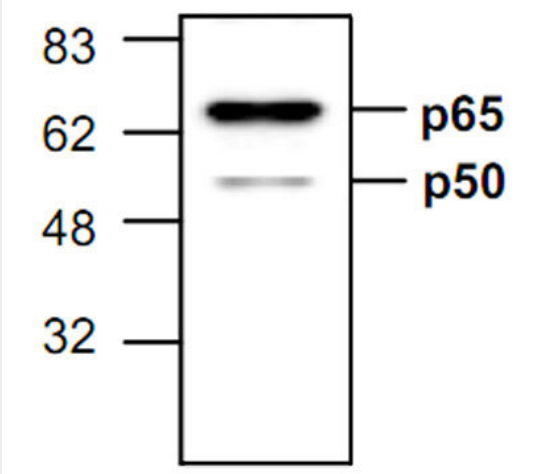
- Flow Cytomety
- Cell Culture

NFkB p65 Antibody - Images



Western blot analysis NFkB expression in Jurkat cell lysate.

NFkB p65 Antibody - Background

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 has an isoform called p49/p52, and both proteins are derived from the amino-terminal of precursor protein p105 and p100. 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 (IL-1 & TNF, etc.), and viral infection, IkB is phosphorylated and degraded by proteosome. The active NFkB heterodimer is translocated into the nucleus and induces gene expression.