

**NFkB p50 Antibody**  
**Rabbit Polyclonal Antibody**  
**Catalog # ABV10259****Specification**

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**NFkB p50 Antibody - Product Information**

Application	WB
Primary Accession	<a href="#">P19838</a>
Other Accession	<a href="#">BAF84139.1</a>
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	105356

**NFkB p50 Antibody - Additional Information****Gene ID** 4790**Application & Usage****Western blotting (0.5-4 µg/ml). However, the optimal conditions should be determined individually.****Other Names**

NFkBp50, NFkB p50, NF-kBp50, NF-kB p50, NFkappaB p50, NFKB1, NFKB-p105 , NFKB-p50 , NF-kappa-B , EBP-1, MGC54151, DKFZp686C01211

**Target/Specificity**

NFkB p50

**Antibody Form**

Liquid

**Appearance**

Colorless liquid

**Formulation**

100 µg (0.5 mg/ml) rabbit anti-NFkB p50 polyclonal antibody in phosphate buffered saline (PBS), pH 7.2, containing 30% 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 p50 Antibody is for research use only and not for use in diagnostic or therapeutic

procedures.

## **NFkB p50 Antibody - Protein Information**

**Name** NFKB1

### **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 and the heterodimeric p65-p50 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. 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. NF-kappa-B heterodimeric p65-p50 and RelB-p50 complexes are transcriptional activators. The NF-kappa-B p50-p50 homodimer is a transcriptional repressor, but can act as a transcriptional activator when associated with BCL3. NFKB1 appears to have dual functions such as cytoplasmic retention of attached NF-kappa-B proteins by p105 and generation of p50 by a cotranslational processing. The proteasome-mediated process ensures the production of both p50 and p105 and preserves their independent function, although processing of NFKB1/p105 also appears to occur post-translationally. p50 binds to the kappa-B consensus sequence 5'-GGRNNYYCC-3', located in the enhancer region of genes involved in immune response and acute phase reactions. In a complex with MAP3K8, NFKB1/p105 represses MAP3K8-induced MAPK signaling; active MAP3K8 is released by proteasome-dependent degradation of NFKB1/p105.

### **Cellular Location**

[Nuclear factor NF-kappa-B p105 subunit]: Cytoplasm

## **NFkB p50 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](#)

## **NFkB p50 Antibody - Images**

## **NFkB p50 Antibody - Background**

Nuclear factor kappa B (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 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 proteasome. The active NFkB heterodimer is translocated into the nucleus and induces gene expression.