

NFkB p50 Polyclonal Antibody
Purified Rabbit Polyclonal Antibody
Catalog # ABV11528**Specification**

NFkB p50 Polyclonal Antibody - Product Information

Application	WB
Primary Accession	P19838
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	105356

NFkB p50 Polyclonal Antibody - Additional Information**Gene ID** 4790**Other Names**

Nuclear factor NF-kappa-B p105 subunit, DNA-binding factor KBF1, EBP-1, Nuclear factor of kappa light polypeptide gene enhancer in B-cells 1, Nuclear factor NF-kappa-B p50 subunit, NFKB1

Target/Specificity

NFkB p50

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.

Background Descriptions**Precautions**

NFkB p50 Polyclonal Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

NFkB p50 Polyclonal 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 Polyclonal 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 Polyclonal Antibody - Images

NFkB p50 Polyclonal 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.