

**NFkB Blocking Peptide**  
**Catalog # PBV10018b****Specification**

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**NFkB Blocking Peptide - Product Information**

Primary Accession	<a href="#">Q04207</a>
Other Accession	<a href="#">NP_033071</a>
Gene ID	<b>19697</b>
Calculated MW	<b>60212</b>

**NFkB Blocking Peptide - Additional Information****Gene ID** 19697**Application & Usage**

The peptide is used for blocking the antibody activity of active NFkB. It usually blocks the antibody activity completely in Western blot analysis by incubating the peptide with equal volume of antibody for 30 minutes at 37°C

**Other Names**

Transcription factor p65, Nuclear factor NF-kappa-B p65 subunit, Nuclear factor of kappa light polypeptide gene enhancer in B-cells 3, Rela, Nfkb3

**Target/Specificity**

NFkB

**Formulation**

50 µg (0.2 mg/ml) in phosphate buffered saline (PBS), pH 7.2, containing 0.1% BSA and 0.02% thimerosal.

**Reconstitution & Storage**

-20 °C

**Background Descriptions****Precautions**

NFkB Blocking Peptide is for research use only and not for use in diagnostic or therapeutic procedures.

**NFkB Blocking Peptide - 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 Blocking Peptide - 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 Blocking Peptide - Images**