

Anti-NF-kB p65 Antibody
Catalog # ABO10580**Specification**

Anti-NF-kB p65 Antibody - Product Information

Application	WB
Primary Accession	Q04206
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized

Description

Rabbit IgG polyclonal antibody for Transcription factor p65(RELA) detection. Tested with WB in Human;Mouse;Rat.

Reconstitution

Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-NF-kB p65 Antibody - Additional Information

Gene ID 5970

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

Calculated MW

60219 MW KDa

Application Details

Western blot, 0.1-0.5 µg/ml, Human, Mouse, Rat

Subcellular Localization

Nucleus. Cytoplasm. Colocalized with DDX1 in the nucleus upon TNF-alpha induction (By similarity). Nuclear, but also found in the cytoplasm in an inactive form complexed to an inhibitor (I-kappa-B). Colocalizes with GFI1 in the nucleus after LPS stimulation. .

Protein Name

Transcription factor p65

Contents

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg Thimerosal, 0.05mg NaN3.

Immunogen

A synthetic peptide corresponding to a sequence at the N-terminus of human NF-kB p65(116-131aa AISQRIQTNNNPFQVP), identical to the related rat sequence, and different from the related mouse sequence by one amino acid.

Purification

Immunogen affinity purified.

Cross Reactivity

No cross reactivity with other proteins

Storage

At -20°C for one year. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for a longer time. Avoid repeated freezing and thawing.

Sequence Similarities

Contains 1 RHD (Rel-like) domain.

Anti-NF-κB p65 Antibody - Protein Information

Name RELA

Synonyms NFKB3

Function

NF-κappa-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-κappa-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-κappa-B heterodimeric RELA-NFKB1 and RELA-REL complexes, for instance, function as transcriptional activators. NF-κappa-B is controlled by various mechanisms of post-translational modification and subcellular compartmentalization as well as by interactions with other cofactors or corepressors. NF-κappa-B complexes are held in the cytoplasm in an inactive state complexed with members of the NF-κappa-B inhibitor (I-κappa-B) family. In a conventional activation pathway, I-κappa-B is phosphorylated by I-κappa-B kinases (IKKs) in response to different activators, subsequently degraded thus liberating the active NF-κappa-B complex which translocates to the nucleus. The inhibitory effect of I-κappa-B on NF-κappa-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-κappa-B complex. Besides its activity as a direct transcriptional activator, it is also able to modulate promoters accessibility to transcription factors and thereby indirectly regulate gene expression. Associates with chromatin at the NF-κappa-B promoter region via association with DDX1. Essential for cytokine gene expression in T-cells (PubMed:15790681). The NF-κappa-B homodimeric RELA-RELA complex appears to be involved in invasion-mediated activation of IL-8 expression. Key transcription factor regulating the IFN response during SARS-CoV-2 infection (PubMed:33440148).

Cellular Location

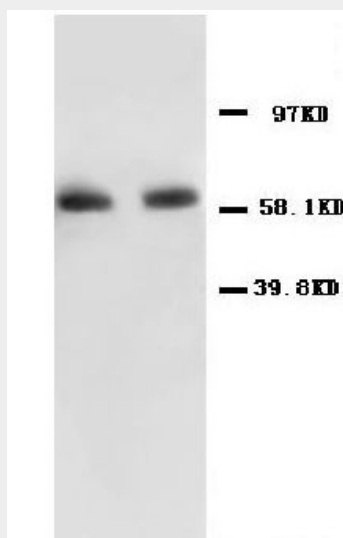
Nucleus. Cytoplasm. Note=Nuclear, but also found in the cytoplasm in an inactive form complexed to an inhibitor (I-κappa-B) (PubMed:1493333). Colocalized with DDX1 in the nucleus upon TNF-α induction (PubMed:19058135). Colocalizes with GFI1 in the nucleus after LPS stimulation (PubMed:20547752). Translocation to the nucleus is impaired in L.monocytogenes infection (PubMed:20855622)

Anti-NF-kB 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](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Anti-NF-kB p65 Antibody - Images



Anti-NF-kB p65 antibody, ABO10580, Western blottingAll lanes: Anti NF-kB p65 (ABO10580) at 0.5ug/mlLane 1: Human Colon Cancer Tissue Lysate at 50ugLane 2: HELA Whole Cell Lysate at 40ugPredicted bind size: 65KDObserved bind size: 65KD

Anti-NF-kB p65 Antibody - Background

The p65(RELA) heterodimer is the most abundant form of NFkB. This gene is located on 11q13, which consists of 10 exons and spans about 8.1 kb of DNA. In rat sciatic nerves, the expression of the activated p65 subunit of NFkB was high in the nuclei of premyelinating Schwann cells and then progressively declined until it was nearly absent in adults. The transcriptional activity of NF-kappa-B is stimulated upon phosphorylation of its p65 subunit on serine-276 by protein kinase A(PKA). The transcriptional coactivator CBP/p300 associates with NF-kappa-B p65 through 2 sites, an N-terminal domain that interacts with the C-terminal region of unphosphorylated p65, and a second domain that only interacts with p65 phosphorylated on serine-276.