10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

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 r˚Constitution, 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-kB 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. Associates with chromatin at the NF-kappa-B promoter region via association with DDX1. Essential for cytokine gene expression in T- cells (PubMed:15790681). The NF-kappa-B homodimeric RELA-RELA complex appears to be involved in invasin-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-kappa-B) (PubMed:1493333). Colocalized with DDX1 in the nucleus upon TNF-alpha 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)

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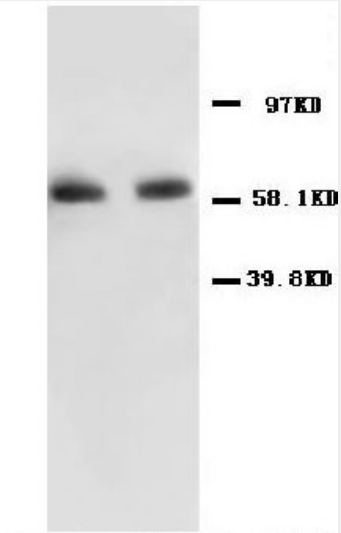
Anti-NF-kB p65 Antibody - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- 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.