

KD-Validated Anti-NFKB1 Rabbit Monoclonal Antibody

Rabbit monoclonal antibody

Catalog # AGI1291

Product Information

Application	WB, FC, ICC
Primary Accession	P19838
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Isotype	Rabbit IgG
Clone Names	23GB2710
Calculated MW	105356
Gene Name	NFKB1
Aliases	NFKB1; Nuclear Factor Kappa B Subunit 1; Nuclear Factor Of Kappa Light Polypeptide Gene Enhancer In B-Cells 1; Nuclear Factor NF-Kappa-B P105 Subunit; NFKB-P50; NF-KB1; KBF1; DNA-Binding Factor KBF1; NF-KappaB; NFkappaB; EBP-1; P105; P50; Nuclear Factor Kappa-B DNA Binding Subunit; Nuclear Factor NF-Kappa-B P50 Subunit; NF-Kappabeta; NF-Kappa-B1; NFKB-P105; NF-KAPPAB; NFKAPPAB; CVID12; NF-KB
Immunogen	A synthesized peptide derived from human NF- κ B (p105/p50)

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

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

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