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# KD-Validated Anti-NFKB1 Rabbit Monoclonal Antibody

**Rabbit monoclonal antibody**
**Catalog # AGI1291**

## Specification

### KD-Validated Anti-NFKB1 Rabbit Monoclonal Antibody - Product Information

| | |
|---|---|
| Application | **WB, FC, ICC** |
| Primary Accession | P19838 |
| Reactivity | **Rat, Human, Mouse** |
| Clonality | **Monoclonal** |
| Isotype | **Rabbit IgG** |
| Calculated MW | **Predicted, 105 kDa , observed, 50,105 kDa KDa** |
| 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-κB (p105/p50)** |

### KD-Validated Anti-NFKB1 Rabbit Monoclonal 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

### KD-Validated Anti-NFKB1 Rabbit Monoclonal 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.

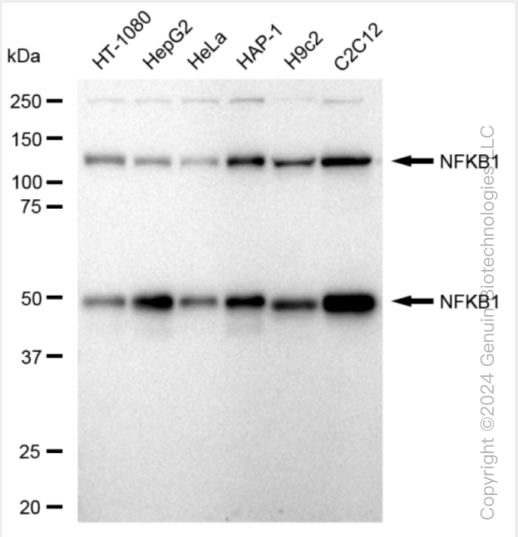
**Cellular Location**
[Nuclear factor NF-kappa-B p105 subunit]: Cytoplasm

## KD-Validated Anti-NFKB1 Rabbit Monoclonal 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

## KD-Validated Anti-NFKB1 Rabbit Monoclonal Antibody - Images




Western blotting analysis using anti-NFKB1 antibody (Cat#61524). Total cell lysates (30 µg) from

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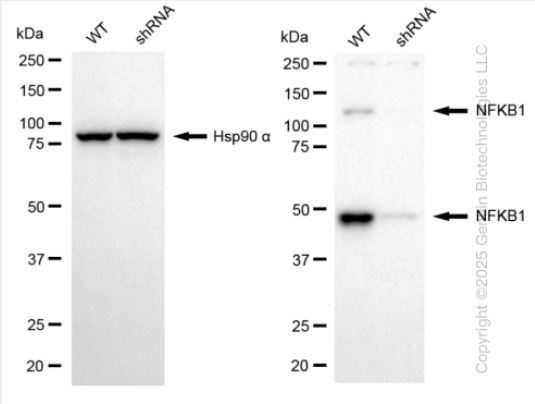
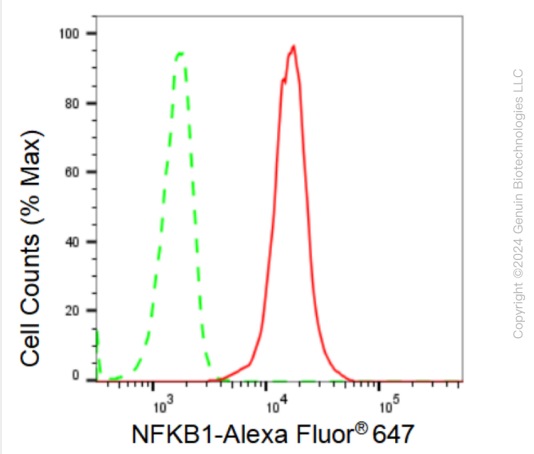
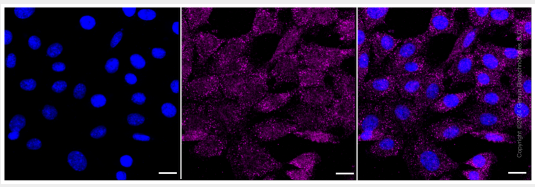
various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with anti-NFKB1 antibody (Cat#61524, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (Cat#201, 1:20,000) respectively. Image was developed using FeQ™ ECL Substrate Kit (Cat#226).




Western blotting analysis using anti-NFKB1 antibody (Cat#61524). NFKB1 expression in wild type (WT) and NFKB1 shRNA knockdown (KD) HeLa cells with 20 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with anti-NFKB1 antibody (Cat#61524, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (Cat#201, 1:20,000) respectively. Image was developed using NaQ™ ECL Substrate Kit (Cat#716).




Flow cytometric analysis of NFKB1 expression in C2C12 cells using NFKB1 antibody (Cat#61524, 1:2,000). Green, isotype control; red, NFKB1.



Immunocytochemical staining of C2C12 cells with NFKB1 antibody (Cat#61524, 1:1,000). Nuclei were stained blue with DAPI; NFKB1 was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: Medium. Scale bar: 20 µm.