NF-κB p65 (R197I) Rabbit mAb

CatalogNo: AR0003 Recombinant FSS™

•Main information

Target	NFκB p65
Reactivity	Human,Mouse,Rat （Monkey, Pig, Horse, Bovine, Dog, Goat）
Applications	WB,IHC,IF,IP,ELISA
MW (kDa)	65kD (Calculated) 65kD (Observed)
Host Species	Rabbit
Isotype	IgG,Kappa

•Recommended Dilutions

IHC 1:1000-1:4000

WB 1:1000-1:5000

IF 1:200-1:1000

ELISA 1:5000-1:20000

IP 1:50-1:200,Note: For IHC, we suggest antigen retrieval with TE buffer pH 9.0 (Cat#RH0011)

•Detailed information

Specificity	Endogenous
Storage	-15°C to -25°C/1 year(Do not lower than -25°C, Ship by ice bag)
Formulation	PBS, 50% glycerol, 0.05% Proclin 300, 0.05%BSA
Purification	Protein A
Clonality	Monoclonal
Clone Number	R197I

•Target Information

Gene name RELA

Protein Name Transcription factor p65

Organism	Gene ID	UniProt ID
Human	5970;	Q04206;
Mouse	19697;	Q04207;

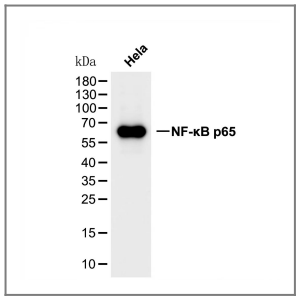
Cellular Localization Nucleus . Cytoplasm . Nuclear, but also found in the cytoplasm in an inactive form complexed to an inhibitor (I-kappa-B) (PubMed:1493333). Colocalized with DDX1 in the nucleus upon TNF-alpha induction (PubMed:19058135). Colocalizes with GFI1 in the nucleus after LPS stimulation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

Tissue specificity Bone,Colon,Pancreas,Placenta,

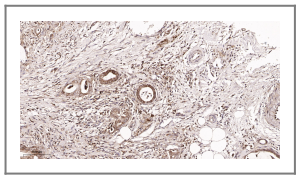
Function

Function:NF-kappa-B is a pleiotropic transcription factor which is present in almost all cell types and is involved in many biological processed 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 p65-c-Rel complexes are transcriptional activators. The NF-kappa-B p65-p65 complex appears to be involved in invasin-mediated activation of IL-8 expression. The inhibitory effect of I-kappa-B upon NF-kappa-B the cytoplasm is exerted primarily through the interaction with p65. p65 shows a weak DNA-binding site which could contribute directly to DNA binding in the NF-kappa-B complex.,PTM:Phosphorylation on 'Ser-536' stimulates acetylation on 'Lys-310' and interaction with CBP; the phosphorylated and acetylated forms show enhanced transcriptional activity.,PTM:Reversibly acetylated; the acetylation seems to be mediated by CBP, the deacetylation by HDAC3. Acetylation at 'Lys-122' enhances DNA binding and impairs association with NFKBIA. Acetylation at 'Lys-310' is required for full transcriptional activity in the absence of effects on DNA binding and NFKBIA association. Acetylation can also lower DNA-binding and results in nuclear export.,PTM:Ubiquitinated, leading to its proteosomal degradation. Degradation is required for termination of NF-kappa-B response.,similarity:Contains 1 RHD (Rel-like) domain.,subcellular location:Nuclear, but also found in the cytoplasm in an inactive form complexed to an inhibitor (I-kappa-B).,subunit:Component of the NF-kappa-B p65-p50 complex. Component of the NF-kappa-B p65-c-Rel complex. Homodimer; component of the NF-kappa-B p65-p65 complex. Component of the NF-kappa-B p65-p52 complex. May interact with ETHE1. Binds AES and TLE1. Interacts with TP53BP2. Binds to and is phosphorylated by the activated form of either RPS6KA4 or RPS6KA5. Interacts with ING4 and this interaction may be indirect. Interacts with CARM1, USP48 and UNC5CL. Interacts with IRAK1BP1 (By similarity).Interacts with NFKBID (By similarity). Interacts with NFKBIA. Interacts with GSK3B. Interacts with NFKBIB (By similarity). Interacts with NFKBIE. Interacts with NFKBIZ (By similarity). Part of a 70-90 kDa complex at least consisting of CHUK, IKBKB, NFKBIA, RELA, IKBKAP and MAP3K14. Interacts with HDAC3; HDAC3 mediates the deacetylation of RELA. Interacts with HDAC1; the interaction requires non-phosphorylated RELA. Interacts with CBP; the interaction requires phosphorylated RELA. Interacts (phosphorylated at 'Thr-254') with PIN1; the interaction inhibits p65 binding to NFKBIA. Interacts with SOCS1. Interacts with UXT. Interacts with MTDH. Interacts with human respiratory syncytial virus (HRSV) protein M2-1.,

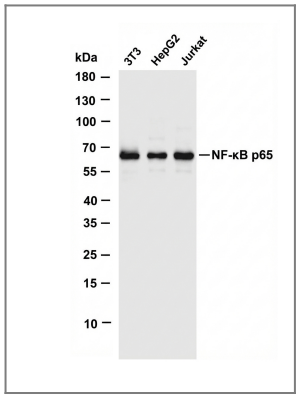
•Validation Data



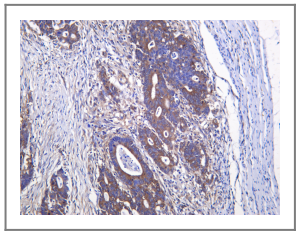
Western Blot analysis was performed using Hela cell lysates , and proteins were separated by 4–20% SDS-PAGE.



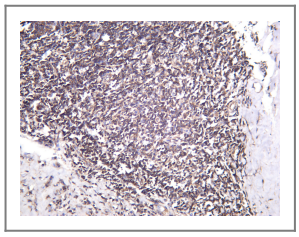
Immunohistochemical analysis of paraffin-embedded Human colon tissue. 1, primary Antibody was diluted at 1:200(4°C,overnight). 2, EDTA pH 9.0 was used for antibody retrieval(>98°C,20min). 3,Secondary antibody was diluted at 1:200(room tempeRature, 30min).



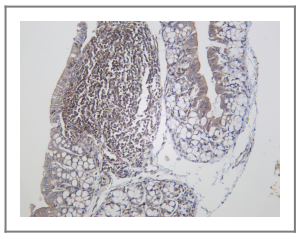
Western blot analysis was performed on lysates prepared from murine cell line 3T3 and human cell lines HepG2, Jurkat. Proteins were resolved by SDS-PAGE, and the expression of NF-κB p65 was subsequently detected.



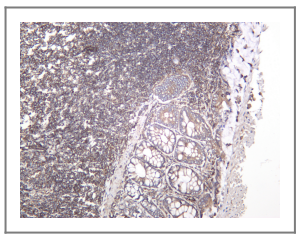
Immunohistochemical analysis of paraffin-embedded Human colon cancer. Sodium citrate pH 6.0 was used for antibody retrieval(>98°C,20min).



Immunohistochemical analysis of paraffin-embedded Human tonsil. Sodium citrate pH 6.0 was used for antibody retrieval(>98°C,20min).



Immunohistochemical analysis of paraffin-embedded Mouse colon. Sodium citrate pH 6.0 was used for antibody retrieval(>98°C,20min).



Immunohistochemical analysis of paraffin-embedded rat colon. Sodium citrate pH 6.0 was used for antibody retrieval(>98°C,20min).

•Contact information

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Please scan the QR code to access additional product information:
NF-κB p65 (R197I) Rabbit mAb

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Antibody | ELISA Kits | Protein | Reagents