

Rabbit Anti-phospho-NFkB p65 (Ser281), Alexa Fluor® 750 conjugated antibody

SL17502R-AF750

Product Name	phospho-NFkB p65 (Ser281), Bodipy Fluor 750 conjugated
Chinese Name	AF750 标记的磷酸化 The nucleus 因子抗体
Alias	NF-kB p65 (phospho S281); p-NF-kB p65 (phospho S281); NF kB P65; NF-kB p65; Avian reticuloendotheliosis viral (v rel) oncogene homolog A; MGC131774; NF kappa B p65delta3; NFkB3; Nuclear Factor NF Kappa B p65 Subunit; Nuclear factor NF-kappa-B p65 subunit; Nuclear factor of kappa light polypeptide gene enhancer in B cells 3; Nuclear factor of kappa light polypeptide gene enhancer in B-cells 3; OTTHUMP00000233473; OTTHUMP00000233474; OTTHUMP00000233475; OTTHUMP00000233476; OTTHUMP00000233900; p65; p65 NF kappaB; p65 NFkB; relA; TF65_HUMAN; Transcription factor p65; v rel avian reticuloendotheliosis viral oncogene homolog A (nuclear factor of kappa light polypeptide gene enhancer in B cells 3 (p65)); v rel reticuloendotheliosis viral oncogene homolog A (avian); V rel reticuloendotheliosis viral oncogene homolog A, nuclear factor of kappa light polypeptide gene enhancer in B cells 3, p65.
Product Type	Phosphorylated anti
Research Area	Tumour Cell biology Chromatin and nuclear signals Signal transduction Kinases and Phosphatases Epigenetics
Immunogen Species	Rabbit
Clonality	Polyclonal
React Species	Human,Mouse(predicted:Rat,Dog,Pig,Cow,Horse,Sheep)
Applications	Flow-Cyt=1µg/Test not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Theoretical molecular weight	61kDa
Cellular localization	The nucleus cytoplasmic
Form	Liquid

Concentration	1mg/ml
immunogen	KLH conjugated synthesised phosphopeptide derived from human NFKB p65 around the phosphorylation site of Ser281: EL(p-S)EP
Lsotype	IgG
Purification	affinity purified by Protein A
Buffer Solution	1M TBS(pH7.4) with 1% BSA, 3% Proclin300 and 50% Glycerol.
Storage	Shipped at 4°C. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.
Attention	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
PubMed	PubMed NF-kappa-B is a ubiquitous transcription factor involved in several biological processes. It is held in the cytoplasm in an inactive state by specific inhibitors. Upon degradation of the inhibitor, NF-kappa-B moves to the nucleus and activates transcription of specific genes. NF-kappa-B is composed of NFKB1 or NFKB2 bound to either REL, RELA, or RELB. The most abundant form of NF-kappa-B is NFKB1 complexed with the product of this gene, RELA. Four transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Sep 2011].
Product Detail	Function: NF-kappa-B is a pleiotropic transcription factor which is present in almost all cell types and is involved in 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 p65-c-Rel complexes are transcriptional activators. The NF-kappa-B p65-p65 complex appears to be involved in invasion-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. Associates with chromatin at the NF-kappa-B promoter region via association with DDX1.

Subcellular Location:

Nucleus. Cytoplasm. Nuclear, but also found in the cytoplasm in an inactive form complexed to an inhibitor (I-kappa-B). Colocalized with RELA in the nucleus upon TNF-alpha induction.

Post-translational modifications:

Ubiquitinated, leading to its proteasomal degradation. Degradation is required for termination of NF-kappa-B response.

Monomethylated at Lys-310 by SETD6. Monomethylation at Lys-310 is recognized by the ANK repeats of EHMT1 and promotes the formation of repressed chromatin at target genes, leading to down-regulation of NF-kappa-B transcription factor activity. Phosphorylation at Ser-311 disrupts the interaction with EHMT1 without preventing monomethylation at Lys-310 and relieves the repression of target genes.

Phosphorylation at Ser-311 disrupts the interaction with EHMT1 and promotes transcription factor activity (By similarity). Phosphorylation on Ser-536 stimulates acetylation on Lys-310 and interaction with CBP; the phosphorylated and acetylated forms show enhanced transcriptional activity. 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. Interaction with BRMS1 promotes deacetylation of 'Lys-310'.

Similarity:

Contains 1 RHD (Rel-like) domain.

SWISS:

Q04206

Gene ID:

5970

Database links:

[Entrez Gene: 5970](#) Human

[Entrez Gene: 19697](#) Mouse

[Entrez Gene: 309165](#) Rat

[Omim: 164014](#) Human

[SwissProt: Q04206](#) Human

[SwissProt: Q04207](#) Mouse

[Unigene: 502875](#) Human

[Unigene: 249966](#) Mouse

[Unigene: 19480](#) Rat