BT LAB
Bioassay Technology Laboratory
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NF-κB p105 (Cleaved-Gly433) Rabbit Polyclonal Antibody

Description

Product type	Primary Antibody
Code	BT-AP11520
Host	Rabbit
Isotype	IgG
Size	100ul, 50ul, 20ul
Immunogen	Synthesized peptide derived from human NF-κB p105 (Cleaved-Gly433)
Mol wt	106480
Species reactivity	Human, Mouse
Clonality	Polyclonal
Recommended application	WB, ELISA
Concentration	1 mg/ml
Full name	NF-κB p105
Synonyms	NF-κB p105 ;Cleaved-Gly433; 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;

This product is for research use only, not for use in human, therapeutic or diagnostic procedure.

Background

Glycine-rich region (GRR) appears to be a critical element in the generation of p50.|The C-terminus of p105 might be involved in cytoplasmic retention| inhibition of DNA-binding| and transcription activation.|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 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.|induction:By phorbol ester and TNF-alpha.|PTM:Phosphorylation at 'Ser-903' and 'Ser-907' primes p105 for proteolytic processing in response to TNF-alpha stimulation. Phosphorylation at 'Ser-927' and 'Ser-932' are required for BTRC/BTRCP-mediated proteolysis.|PTM:Polyubiquitination seems to allow p105 processing.|PTM:S-nitrosylation of Cys-61 affects DNA binding.|PTM:While translation occurs| the particular unfolded structure after the GRR repeat promotes the generation of p50 making it an acceptable substrate for the proteasome. This process is known as cotranslational processing. The processed form is active and the unprocessed form acts as an inhibitor (I kappa B-like)| being able to form cytosolic complexes with NF-kappa B| trapping it in the cytoplasm. Complete folding of the region downstream of the GRR repeat precludes processing.|Contains 1 death domain.|Contains 1 RHD (Rel-like) domain.|Contains 7 ANK repeats.|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-p50 complex. Homodimer; component of the NF-kappa-B p50-p50 complex. Component of the NF-kappa-B p105-p50 complex. Component of the NF-kappa-B p50-c-Rel complex. Component of a complex consisting of the NF-kappa-B p50-p50 homodimer and BCL3. Also interacts with MAP3K8. NF-kappa-B p50 subunit interacts with NCOA3 coactivator| which may coactivate NF-kappa-B dependent expression via its histone acetyltransferase activity. Interacts with DSIPI; this interaction prevents nuclear translocation and DNA-binding. Interacts with SPAG9 and UNC5CL. NFKB1/p105 interacts with CFLAR; the interaction inhibits p105 processing into p50. NFKB1/p105 forms a ternary complex with MAP3K8 and TNIP2. Interacts with GSK3B; the interaction prevents processing of p105 to p50. NFKB1/p50 interacts with NFKBIE. NFKB1/p50 interacts with NFKBIZ. Nuclear factor NF-kappa-B p50 subunit interacts with NFKBID.|

Recommended Dilution

WB: 1: 1000 - 1: 2000

ELISA: 1: 5000 - 1: 20000

Not yet tested in other applications.

Images

No images.

Storage

-20°C for 1 year

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