NFκB p105/p50 (Phospho Ser337) Rabbit pAb

CatalogNo: YP0186 Orthogonal Validated

Key Features

Host Species
- Rabbit

Reactivity
- Human,Mouse,Rat

Applications
- WB,IHC,IF,ELISA

MW
- 105kD (Calculated)

Isotype
- IgG

Storage

Storage*	-15°C to -25°C/1 year (Do not lower than -25°C)
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

Recommended Dilution Ratios

WB 1:500-1:2000
IHC 1:100-1:300
IF 1:200-1:1000
ELISA 1:20000
Not yet tested in other applications.

Basic Information

Clonality	Polyclonal

Immunogen Information

Immunogen	The antiserum was produced against synthesized peptide derived from human NF-kappaB p105/p50 around the phosphorylation site of Ser337. AA range:304-353

Specificity	Phospho-NFκB-p105/p50 (S337) Polyclonal Antibody detects endogenous levels of NFκB-p105/p50 protein only when phosphorylated at S337.The name of modified sites may be influenced by many factors, such as species (the modified site was not originally found in human samples) and the change of protein sequence (the previous protein sequence is incomplete, and the protein sequence may be prolonged with the development of protein sequencing technology). When naming, we will use the "numbers" in historical reference to keep the sites consistent with the reports. The antibody binds to the following modification sequence (lowercase letters are modification sites):RKsDL

Target Information

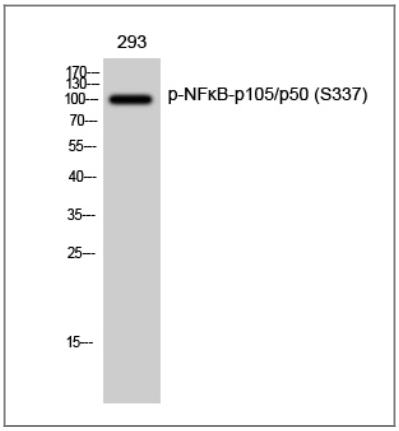
Gene name	NFKB1
Protein Name	Nuclear factor NF-kappa-B p105 subunit

Organism	Gene ID	UniProt ID
Human	4790;	P19838;
Mouse	18033;	P25799;
Rat		Q63369;

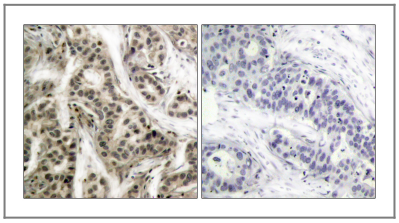
Cellular Localization	Nucleus. Cytoplasm. Nuclear , but also found in the cytoplasm in an inactive form complexed to an inhibitor (I-kappa-B) .
Tissue specificity	Muscle ,Rectum tumor ,Uterus ,

Function	Domain:Glycine-rich region (GRR) appears to be a critical element in the generation of p50. ,Domain:The C-terminus of p105 might be involved in cytoplasmic retention , inhibition of DNA-binding , and transcription activation. ,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 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. ,similarity:Contains 1 death domain. ,similarity:Contains 1 RHD (Rel-like) domain. ,similarity: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. ,

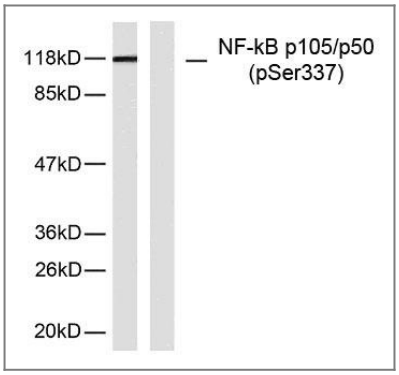
Validation Data



Western Blot analysis of 293 cells using Phospho-NFκB-p105/p50 (S337) Polyclonal Antibody diluted at 1:1000



Immunohistochemistry analysis of paraffin-embedded human breast carcinoma, using NF-kappaB p105/p50 (Phospho-Ser337) Antibody. The picture on the right is blocked with the phospho peptide.



Western blot analysis of lysates from MDA-MB-435 cells, using NF-kappaB p105/p50 (Phospho-Ser337) Antibody. The lane on the left is blocked with the phospho peptide.

Contact information

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Please scan the QR code to access additional product information:
NFκB p105/p50 (Phospho Ser337) Rabbit pAb

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