Best Tools for immunology Research

NF-κB p105 (Phospho Ser903) rabbit pAb

Catalog No :	YP1564
Reactivity :	Human;Mouse
Applications :	WB;IHC
Target :	NFKB1
Fields :	>>Antifolate resistance;>>MAPK signaling pathway;>>Ras signaling pathway;>>cAMP signaling pathway;>>Chemokine signaling pathway;>>NF-kappa B signaling pathway;>>HIF-1 signaling pathway;>>Sphingolipid signaling pathway;>>PI3K-Akt signaling pathway;>>Apoptosis;>>Longevity regulating pathway;>>Cellular senescence;>>Osteoclast differentiation;>>Neutrophil extracellular trap formation;>>Toll-like receptor signaling pathway;>>NOD-like receptor signaling pathway;>>RIG-I-like receptor signaling pathway;>>Cytosolic DNA-sensing pathway;>>C-type lectin receptor signaling pathway;>>IL-17 signaling pathway;>>Th1 and Th2 cell differentiation;>>Th17 cell differentiation;>>T cell receptor signaling pathway;>>B cell receptor signaling pathway;>>TNF signaling pathway;>>Neurotrophin signaling pathway;>>Prolactin signaling pathway;>>Adipocytokine signaling pathway;>>Relaxin signaling pathway;>>Insulin resistance;>>Non-alcoholic fatty liver disease;>>AGE-RAGE signaling pathway in diabetic complications;>>A
Gene Name :	NFKB1
Protein Name :	NF-κB p105 (Phospho Ser903)
Human Gene Id :	4790
Human Swiss Prot No :	P19838
Mouse Gene Id :	18033
Mouse Swiss Prot No :	P25799
Rat Swiss Prot No :	Q63369
Immunogen :	Synthesized peptide derived from human NF-κB p105 (Phospho Ser903)

Specificity : This antibody detects endogenous levels of Human,Mouse NF-κB p105 (Phospho Ser903)

Formulation : Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

Source : Polyclonal, Rabbit,IgG

Dilution : WB 1:500-2000;IHC 1:50-300

Purification : The antibody was affinity-purified from rabbit serum by affinity-chromatography using specific immunogen.

Concentration : 1 mg/ml

Storage Stability : -15°C to -25°C/1 year(Do not lower than -25°C)

Observed Band : 69kD

Background : 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.,

Function :

negative regulation of transcription from RNA polymerase II promoter, regulation of cytokine production, negative regulation of cytokine production, transcription, transcription, DNA-dependent, regulation of transcription, DNA-dependent, regulation of transcription from RNA polymerase II promoter, transcription from RNA polymerase II promoter, proteolysis, apoptosis, anti-apoptosis, defense response, inflammatory response, cell death, macromolecule catabolic process, response to wounding, negative regulation of biosynthetic process, positive regulation of biosynthetic process, regulation of specific transcription from RNA polymerase II promoter, negative regulation of specific transcription from RNA polymerase II promoter, positive regulation of macromolecule biosynthetic process,negative regulation of macromolecule biosynthetic process, positive regulation of macromolecule metabolic pro

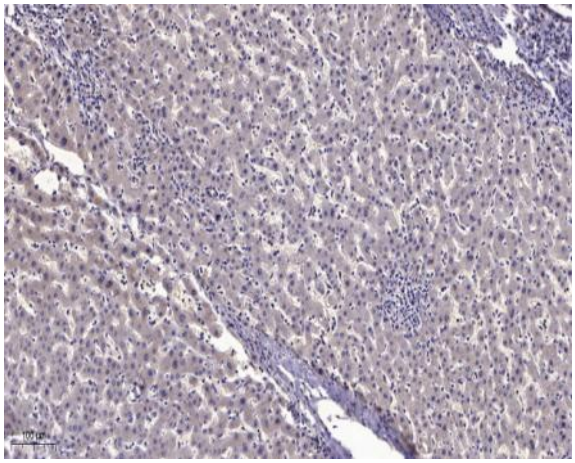
Subcellular Location :

Nucleus. Cytoplasm. Nuclear, but also found in the cytoplasm in an inactive form complexed to an inhibitor (I-kappa-B).

Best Tools for immunology Research

Sort :	10779
No4 :	1

Products Images



Immunohistochemical analysis of paraffin-embedded human liver cancer. 1, Antibody was diluted at 1:200(4° overnight). 2, Tris-EDTA,pH9.0 was used for antigen retrieval. 3,Secondary antibody was diluted at 1:200(room temperature, 45min).