For Research Use Only

NFKB1,p105,p50 Polyclonal antibody

Catalog Number:14220-1-AP 199 Publications

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Basic Information

Catalog Number:
14220-1-AP

Concentration:
800 ug/ml

Source:
Rabbit

Isotype:
IgG

Immunogen Catalog Number:
AG5458

GenBank Accession Number:
BC051765

GeneID (NCBI):
4790

UNIPROT ID:
P19838

Full Name:
nuclear factor of kappa light polypeptide gene enhancer in B-cells 1

Calculated MW:
105 kDa

Observed MW:
50 kDa, 105 kDa

Purification Method:
Antigen affinity purification

Recommended Dilutions:
WB: 1:5000-1:50000
IP: 0.5-4.0 ug for 1.0-3.0 mg of total protein lysate
IF/ICC: 1:200-1:800
FC (Intra): 0.40 ug per 10^6 cells in a 100 µl suspension

Applications

Tested Applications:
WB, IF/ICC, FC (Intra), IP, ELISA

Cited Applications:
WB, IHC, IF, IP, CoIP, ChIP, RIP

Species Specificity:
human, rat

Cited Species:
human, mouse, rat, pig, rabbit, canine, monkey, chicken, bovine, ducks

Positive Controls:

WB : A431 cells, HeLa cells, Jurkat cells, Raji cells, U-87 MG cells

IP : Jurkat cells,

IF/ICC : HeLa cells, HepG2 cells

FC (Intra) : HepG2 cells,

Background Information

NFkB 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. NFkB is activated by various intra- and extracellular stimuli such as cytokines, oxidant free radicals, ultraviolet irradiation, and bacterial or viral products. NFkB is a family of transcription factors that consists of homo- and heterodimers of NFkB1/p50 and RelA/p65 subunits, and controls a variety of cellular events including development and immune responses. All members share a conserved amino terminus domain that includes dimerization, nuclear localization, and DNA binding regions, and a carboxy terminal transactivation domain. Serines 529 and 536 in the transactivation domain of RelA/p65 are phosphorylated in response to several stimuli including phorbol ester, IL1 alpha and TNF alpha as mediated by IkB kinase and p38 MAPK. Phosphorylation of serines 529 and 536 is critical for RelA/p65 transcriptional activity. Activated NFkB translocates into the nucleus and stimulates the expression of genes involved in a wide variety of biological functions. Inappropriate activation of NFkB has been associated with a number of inflammatory diseases while persistent inhibition of NFkB leads to inappropriate immune cell development or delayed cell growth. 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. This antibody can bind both p105 and p50 isoforms of NFKB1.

Notable Publications

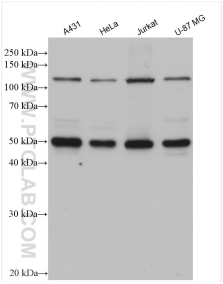
Author	Pubmed ID	Journal	Application
Zhichao Dou	32956704	Exp Cell Res	WB
Di Huang	30224822	Nat Immunol	
Tahir Mehmood	27628030	Biofactors	WB

Storage

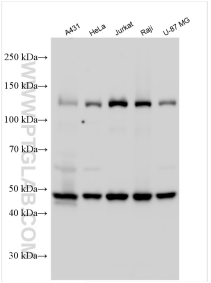
Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol, pH7.3
Aliquoting is unnecessary for -20°C storage

For technical support and original validation data for this product please contact:
T: 4006900926 E: Proteintech-CN@ptglab.com W: ptgcn.com

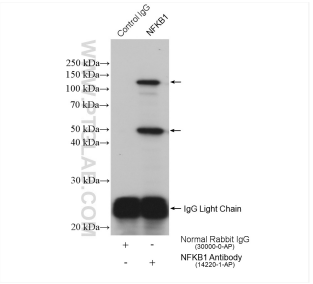
Selected Validation Data



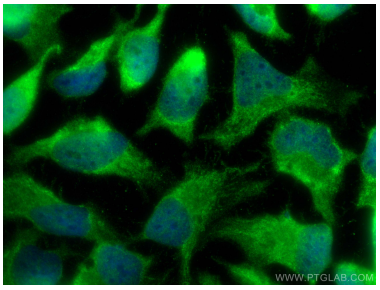
Various lysates were subjected to SDS PAGE followed by western blot with 14220-1-AP (NFKB1,p105,p50 antibody) at dilution of 1:4000 incubated at room temperature for 1.5 hours.



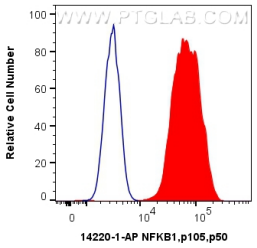
Various lysates were subjected to SDS PAGE followed by western blot with 14220-1-AP (NFKB1,p105,p50 antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours.



IP result of anti-NFKB1,p105,p50 (IP:14220-1-AP, 4ug; Detection:14220-1-AP 1:3000) with Jurkat cells lysate 2280 ug.



Immunofluorescent analysis of (-20°C Ethanol) fixed HeLa cells using NFKB1 antibody (14220-1-AP) at dilution of 1:400 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L).



1X10^6 HepG2 cells were intracellularly stained with 0.4 ug Anti-Human NFKB1,p105,p50 (14220-1-AP) and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) at dilution 1:1000 (red), or 0.4 ug Isotype Control. Cells were fixed and permeabilized with Transcription Factor Staining Buffer Kit (PF00011).

Immunohistochemical analysis of paraffin-embedded human stomach tissue slide using 14220-1-AP (NFKB1,p105,p50 antibody) at dilution of 1:200 (under 20x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).