

For Research Use Only

# NFKB1,p105,p50 Monoclonal antibody



Catalog Number: 66992-1-Ig **3 Publications**

## Basic Information

<b>Catalog Number:</b> 66992-1-Ig	<b>GenBank Accession Number:</b> BC051765	<b>Purification Method:</b> Protein A purification
<b>Size:</b> 150ul, Concentration: 1500 µg/ml by Nanodrop and 1000 µg/ml by Bradford method using BSA as the standard;	<b>GeneID (NCBI):</b> 4790	<b>CloneNo.:</b> 2G1E3
<b>Source:</b> Mouse	<b>Full Name:</b> nuclear factor of kappa light polypeptide gene enhancer in B-cells 1	<b>Recommended Dilutions:</b> WB 1:5000-1:50000 IHC 1:150-1:600 IF 1:500-1:2000
<b>Isotype:</b> IgG2a	<b>Calculated MW:</b> 105 kDa	
<b>Immunogen Catalog Number:</b> AG5832	<b>Observed MW:</b> 50 kDa, 105 kDa	

## Applications

**Tested Applications:**  
FC, IF, IHC, WB, ELISA

**Cited Applications:**  
IF, WB

**Species Specificity:**  
Human, mouse

**Cited Species:**  
mouse

**Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (\*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0**

**Positive Controls:**

**WB:** LNCaP cells, HeLa cells, Jurkat cells, K-562 cells, THP-1 cells

**IHC:** human breast cancer tissue,

**IF:** HepG2 cells,

## Background Information

NFκB 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. NFκB is activated by various intra- and extracellular stimuli such as cytokines, oxidant free radicals, ultraviolet irradiation, and bacterial or viral products. NFκB is a family of transcription factors that consists of homo- and heterodimers of NFκB1/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 IκB kinase and p38 MAPK. Phosphorylation of serines 529 and 536 is critical for RelA/p65 transcriptional activity. Activated NFκB translocates into the nucleus and stimulates the expression of genes involved in a wide variety of biological functions. Inappropriate activation of NFκB has been associated with a number of inflammatory diseases while persistent inhibition of NFκB leads to inappropriate immune cell development or delayed cell growth. NFκB1 appears to have dual functions such as cytoplasmic retention of attached NF-κappa-B proteins by p105 and generation of p50 by a cotranslational processing. This antibody can bind both p105 and p50 isoforms of NFκB1.

## Notable Publications

Author	Pubmed ID	Journal	Application
Aihong Li	34469792	J Ethnopharmacol	IF
Chenghu Guo	37667861	Adv Sci (Weinh)	WB,IF
Xuan Li	36717921	Cell Commun Signal	IF,WB

## Storage

**Storage:**

Store at -20°C. Stable for one year after shipment.

**Storage Buffer:**

PBS with 0.02% sodium azide and 50% glycerol pH 7.3.

Aliquoting is unnecessary for -20°C storage

**\*\*\* 20ul sizes contain 0.1% BSA**

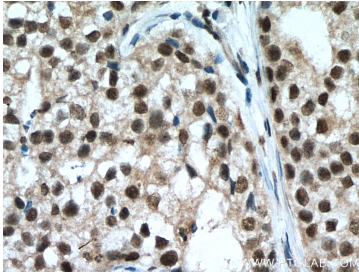
For technical support and original validation data for this product please contact:

T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)

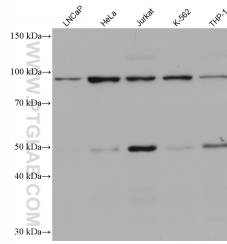
E: proteintech@ptglab.com  
W: ptglab.com

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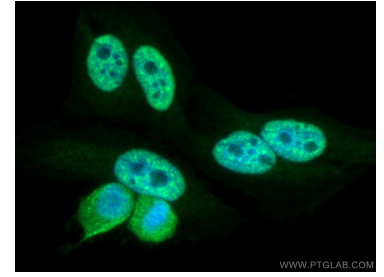
## Selected Validation Data



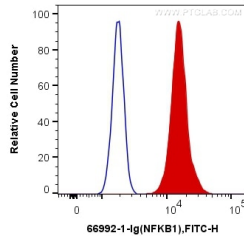
Immunohistochemical analysis of paraffin-embedded human breast cancer tissue slide using 66992-1-Ig (NFKB1,p105,p50 antibody) at dilution of 1:300 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Various lysates were subjected to SDS PAGE followed by western blot with 66992-1-Ig (NFKB1,p105,p50 antibody) at dilution of 1:40000 incubated at room temperature for 1.5 hours.



Immunofluorescent analysis of (4% PFA) fixed HepG2 cells using NFKB1,p105,p50 antibody (66992-1-Ig, Clone: 2G1E3) at dilution of 1:1000 and CoraLite@488-Conjugated AffiniPure Goat Anti-Mouse IgG(H+L).



1X10<sup>6</sup> HepG2 cells were intracellularly stained with 0.4 ug Anti-Human NFKB1,p105,p50 (66992-1-Ig, Clone:2G1E3) and CoraLite@488-Conjugated AffiniPure Goat Anti-Mouse IgG(H+L) at dilution 1:1000 (red), or 0.4 ug Mouse IgG2a Isotype Control (66360-2-Ig, Clone: K11A1B2A2) (blue). Cells were fixed and permeabilized with Transcription Factor Staining Buffer Kit (PF00011).