For Research Use Only

# NFKB1,p105,p50 Monoclonal antibody, PBS Only (Detector)

Catalog Number:66992-1-PBS

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## Basic Information

Catalog Number:
66992-1-PBS

Size:
100ug , Concentration: 1mg/ml by Nanodrop;

Source:
Mouse

Isotype:
IgG2a

Immunogen Catalog Number:
AG5832

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:
Protein A purification

CloneNo.:
2G1E3

## Applications

Tested Applications:
WB, IHC, IF/ICC, FC (Intra), Cytometric bead array, Indirect ELISA

Species Specificity:
human, mouse

## Product Information

66992-1-PBS targets NFKB1,p105,p50 as part of a matched antibody pair:

MP51119-1: 66992-2-PBS capture and 66992-1-PBS detection (validated in Cytometric bead array)

Unconjugated mouse monoclonal antibody pair in PBS only (BSA and azide free) storage buffer at a concentration of 1 mg/mL, ready for conjugation.

This conjugation ready format makes antibodies ideal for use in many applications including: ELISAs, multiplex assays requiring matched pairs, mass cytometry, and multiplex imaging applications.Antibody use should be optimized by the end user for each application and assay.

## Background Information

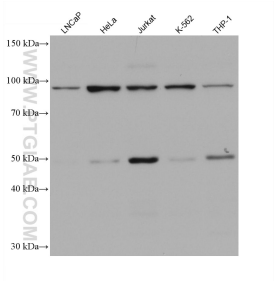
NFkB is a pleiotropic transcription factor which is present in almost all cell types and is involved in many biological processed such as inflammation, immunity, differentiation, cell growth, tumorigenesis and apoptosis. NFkB is activated by various intra- and extracellular stimuli such as cytokines, 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.

## Storage

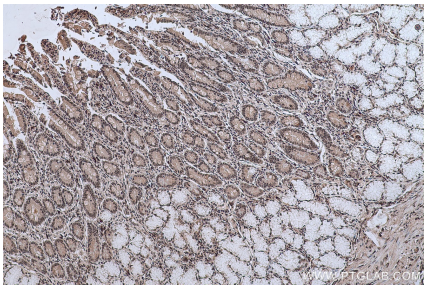
Storage:
Store at -80°C.
Storage Buffer:
PBS Only

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

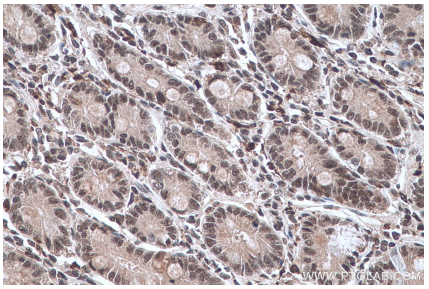
## Selected Validation Data



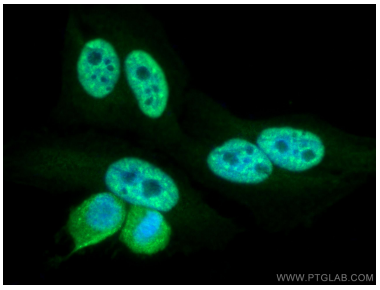

Various lysates were subjected to SDS PAGE followed by western blot with 66992-1-Ig (NFKB1,p105,p50 antibody) at dilution of 1:40000 incubated at room temperature for 1.5 hours. This data was developed using the same antibody clone with 66992-1-PBS in a different storage buffer formulation.



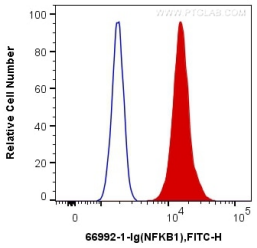

Immunohistochemical analysis of paraffin-embedded human stomach cancer tissue slide using 66992-1-Ig (NFKB1 antibody) at dilution of 1:4000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0). This data was developed using the same antibody clone with 66992-1-PBS in a different storage buffer formulation.



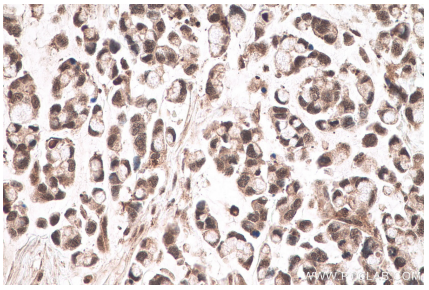

Immunohistochemical analysis of paraffin-embedded human stomach cancer tissue slide using 66992-1-Ig (NFKB1 antibody) at dilution of 1:4000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0). This data was developed using the same antibody clone with 66992-1-PBS in a different storage buffer formulation.



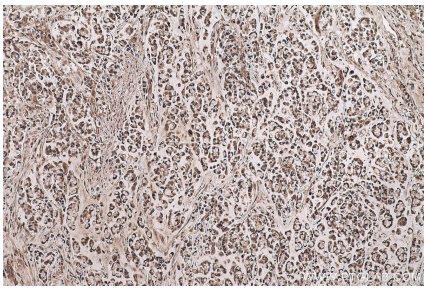

Immunofluorescent analysis of (4% PFA) fixed HepG2 cells using NFKB1,p105,p50 antibody (66992-1-Ig, Clone: 2G1E3 ) at dilution of 1:1000 and CoraLite®488-Conjugated AffiniPure Goat Anti-Mouse IgG(H+L). This data was developed using the same antibody clone with 66992-1-PBS in a different storage buffer formulation.



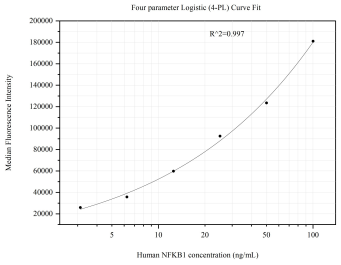

1X10^6 HepG2 cells were intracellularly stained with 0.4 ug Anti-Human NFKB1,p105,p50 (66992-1-Ig, Clone:2G1E3) and CoraLite®488-Conjugated AffiniPure Goat Anti-Mouse IgG(H+L) at dilution 1:1000 (red), or 0.4 ug Mouse IgG2a Isotype Control (66360-2-Ig, Clone: K11A1B2A2) (blue). Cells were fixed and permeabilized with Transcription Factor Staining Buffer Kit (PF00011). This data was developed using the same antibody clone with 66992-1-PBS




Immunohistochemical analysis of paraffin-embedded human colon cancer tissue slide using 66992-1-Ig (NFKB1 antibody) at dilution of 1:4000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0). This data was developed using the same antibody clone with 66992-1-PBS in a different storage buffer formulation.



Immunohistochemical analysis of paraffin-embedded human colon cancer tissue slide using 66992-1-Ig (NFKB1 antibody) at dilution of 1:4000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0). This data was developed using the same antibody clone with 66992-1-PBS in a different storage buffer formulation.




Cytometric bead array standard curve of MP51119-1, NFKB1 Monoclonal Matched Antibody Pair, PBS Only. Capture antibody: 66992-2-PBS. Detection antibody: 66992-1-PBS. Standard:Ag5832. Range: 3.125-100 ng/mL.