

For Research Use Only

# NFKB1 p105/p50-Specific Recombinant monoclonal antibody, PBS Only (Capture)



Catalog Number: 81261-2-PBS

## Basic Information

<b>Catalog Number:</b> 81261-2-PBS	<b>GenBank Accession Number:</b> NM_003998	<b>Purification Method:</b> Protein A purification
<b>Size:</b> 100ug, Concentration: 1 mg/ml by Nanodrop;	<b>GeneID (NCBI):</b> 4790	<b>CloneNo.:</b> 252217G12
<b>Source:</b> Rabbit	<b>UNIPROT ID:</b> P19838	
<b>Isotype:</b> IgG	<b>Full Name:</b> nuclear factor of kappa light polypeptide gene enhancer in B-cells 1	
	<b>Calculated MW:</b> 105 kDa	
	<b>Observed MW:</b> 50 kDa, 105 kDa	

## Applications

**Tested Applications:**  
WB, IHC, Sandwich ELISA, Indirect ELISA

**Species Specificity:**  
human

## Product Information

81261-2-PBS targets NFKB1 p105/p50-Specific as part of a matched antibody pair.

MP03001-1: 81261-2-PBS capture and 81261-3-PBS detection (validated in Sandwich ELISA)

Unconjugated rabbit recombinant monoclonal antibody in PBS only (BSA and azide free) storage buffer at a concentration of 1 mg/mL, ready for conjugation. Created using Proteintech's proprietary in-house recombinant technology. Recombinant production enables unrivalled batch-to-batch consistency, easy scale-up, and future security of supply.

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 processes such as inflammation, immunity, differentiation, cell growth, tumorigenesis and apoptosis. NFKB is activated by various intra and extra cellular 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, pH7.3

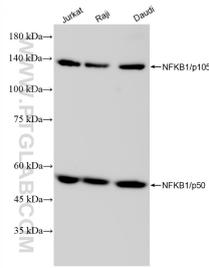
For technical support and original validation data for this product please contact:

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

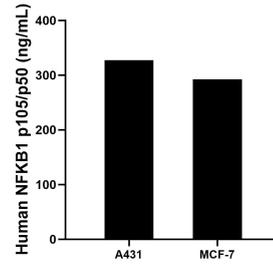
E: [proteintech@ptglab.com](mailto:proteintech@ptglab.com)  
W: [ptglab.com](http://ptglab.com)

**This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.**

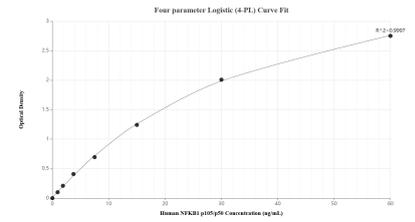
## Selected Validation Data



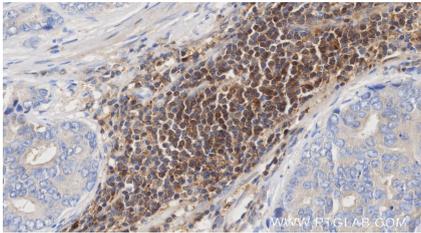
Various lysates were subjected to SDS PAGE followed by western blot with 81261-2-RR (NFKB1 p105/p50-Specific antibody) at dilution of 1:2000 incubated at room temperature for 1.5 hours. This data was developed using the same antibody clone with 81261-2-PBS in a different storage buffer formulation.



The mean NFKB1 p105/p50 concentration was determined to be 327.72 ng/mL in A431 cell extract based on a 1.20 mg/mL extract load and 292.40 ng/mL in MCF-7 cell extract based on a 1.20 mg/mL extract load.



Sandwich ELISA standard curve of MP03001-1, Human NFKB1 p105/p50 Recombinant Matched Antibody Pair - PBS only. 81261-2-PBS was coated to a plate as the capture antibody and incubated with serial dilutions of standard SY00039. 81261-3-PBS was HRP conjugated as the detection antibody. Range: 0.938-60 ng/mL



Immunohistochemical analysis of paraffin-embedded human prostate cancer tissue slide using 81261-2-RR (NFKB1 p105/p50-Specific antibody) at dilution of 1:1000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0). This data was developed using the same antibody clone with 81261-2-PBS in a different storage buffer formulation.