

Anti-NFκB/NFKB1 p105/p50 Antibody Picoband®

Catalog Number: PB9149

About NFKB1

Nuclear factor NF-kappa-B p105 subunit, also called EBP-1 is a protein that in humans is encoded by the NFKB1 gene. By fluorescence in situ hybridization, the gene was assigned to human chromosome 4q24. NFKB1 is a pleiotropic transcription factor present in almost all cell types and is the endpoint of a series of signal transduction events that are initiated by a vast array of stimuli related to many biological processes such as inflammation, immunity, differentiation, cell growth, tumorigenesis and apoptosis. NFKB1 appears to have dual functions such as cytoplasmic retention of attached NFKB1 proteins by p105 and generation of p50 by a cotranslational processing.

Overview

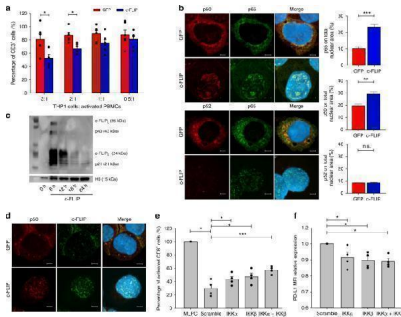
Product Name	Anti-NFκB/NFKB1 p105/p50 Antibody Picoband®
Reactive Species	Human
Description	Boster Bio Anti-NFκB/NFKB1 p105/p50 Antibody Picoband® catalog # PB9149. Tested in Flow Cytometry, IF, ICC, WB applications. This antibody reacts with Human. The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.
Application	Flow Cytometry, IF, ICC, WB
Clonality	Polyclonal
Formulation	Each vial contains 4 mg Trehalose, 0.9 mg NaCl and 0.2 mg Na ₂ HPO ₄ .
Storage Instructions	Store at -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freeze-thaw cycles.
Host	Rabbit
Uniprot ID	P19838

Technical Details

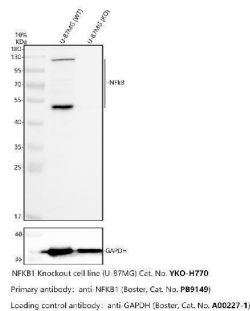
Immunogen	E.coli-derived human NFκB/NFKB1 p105/p50 recombinant protein (Position: M1-Q360). Human NFκB p105/P50 shares 93% amino acid (aa) sequence identity with mouse NFκB p105/P50.
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for ICC.
Cross Reactivity	No cross-reactivity with other proteins
Isotype	Rabbit IgG
Form	Lyophilized

Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Western blot, 0.1-0.5ug/ml, Human Immunocytochemistry/Immunofluorescence, 5 ug/ml, Human Flow Cytometry (Fixed), 1-3 ug/1x10 ⁶ cells, Human

Anti-NFkB/NFKB1 p105/p50 Antibody Picoband® (PB9149) Images

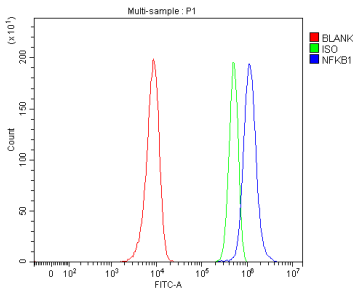


FLIP activates the canonical NF-kappaB pathway in myeloid cells. a Suppressive activity of THP1 cells transfected with c-FLIP RNA was measured by enumeration of an absolute number of human CD3 + T cells collected after in vitro co-culture. b Immunofluorescence confocal microscopy of p65 (red), p50 and p52 (green) nuclear translocation in transfected THP1 cells. c Nuclear c-FLIP protein expression by western blot in THP1 cells transfected with either GFP or c-FLIP RNA at different time points. d Immunofluorescence confocal microscopy of p50 (red) and c-FLIP (green) nuclear translocation in transfected THP1 cells. e CD11b + Ly6C + cells (M-MDSCs) were isolated from the spleen of MCA203 tumor-bearing, wild-type mice by flow sorter and transfected for 18 h with scramble, IKKalpha, IKKbeta, or the combination IKKalpha plus IKKbeta siRNAs. After transfection, cells were washed three times. M-MDSCs were co-incubated with peptide-stimulated CellTrace-labeled OT-I cells. Suppressive activity was measured by enumerating absolute numbers of CD8 + T cells collected after in vitro co-culture. f PD-L1 expression in transfected M-MDSCs. Data are presented either as mean \pm s.e.m of three independent experiments (a) or as mean \pm s.e.m of four independent experimental transfections (e , f) where each plot refers to CD11b + Ly6C + cells isolated from the pooled spleens of three tumor-bearing mice. Original images \times 800 for all panels (b , d). * P

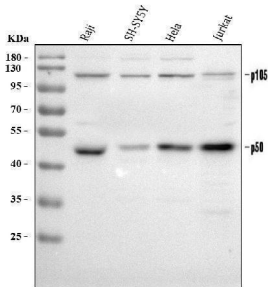


Western blot analysis of NFKB/NFKB1 p105/p50 using anti-NFKB/NFKB1 p105/p50 antibody (PB9149). Electrophoresis was performed on a 10% SDS-PAGE gel at 80V (Stacking gel) / 120V (Resolving gel) for 2 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1: human U-87MG- WT whole cell lysates, Lane 2: human U-87MG-NFKB1 KO whole cell lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-NFKB/NFKB1 p105/p50 antigen affinity purified polyclonal antibody (PB9149) at 0.5 ug/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an ECL Plus Western Blotting Substrate (Catalog # AR1196-200) with Tanon 5200 system. A specific band was detected for NFKB/NFKB1 p105/p50 at approximately 50/120 kDa. The expected band size for NFKB/NFKB1 p105/p50 is at 105 kDa.

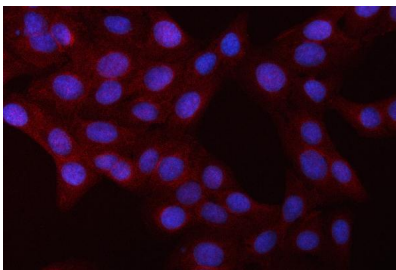
Flow Cytometry analysis of Hela cells using anti-NFKB p105/p50/NFKB1 antibody (PB9149). Overlay histogram showing Hela cells stained with PB9149 (Blue line). To facilitate intracellular staining, cells were fixed with 4%



paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-NFkB p105/p50/NFKB1 Antibody (PB9149, 1 ug/1x10⁶ cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10 ug/1x10⁶ cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1 ug/1x10⁶) used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.



Western blot analysis of NFkB p105/p50/NFKB1 using anti-NFkB p105/p50/NFKB1 antibody (PB9149). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1: human Raji whole cell lysates, Lane 2: human SH-SY5Y whole cell lysates, Lane 3: human HeLa whole cell lysates, Lane 4: human Jurkat whole cell lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-NFkB p105/p50/NFKB1 antigen affinity purified polyclonal antibody (Catalog # PB9149) at 0.5 ug/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for NFkB p105/p50/NFKB1 at approximately 50 kDa, 120 kDa. The expected band size for NFkB p105/p50/NFKB1 is at 105 kDa.



IF analysis of NFkB p105/p50/NFKB1 using anti-NFkB p105/p50/NFKB1 antibody (PB9149). NFkB p105/p50/NFKB1 was detected in an immunocytochemical section of U2OS cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 5 ug/mL rabbit anti-NFkB p105/p50/NFKB1 Antibody (PB9149) overnight at 4°C. Cy3 Conjugated Goat Anti-Rabbit IgG (BA1032) was used as secondary antibody at 1:500 dilution and incubated for 30 minutes at 37°C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.

26 Publications Citing This Product

1. PubMed ID: 10.3109/13880209.2014.898075, Effect of ammonium pyrrolidine dithiocarbamate (PDTC) on NF-kappaB activation and CYP2E1 content of rats with immunological liver injury
2. PubMed ID: 10.3390/ijms14048422, MiR199b Suppresses Expression of Hypoxia-Inducible Factor 1alpha (HIF-1alpha) in Prostate Cancer Cells

3. PubMed ID: 10.1186/s12935-020-1153-y, Breast cancer pathogenesis is linked to the intra-tumoral estrogen sulfotransferase (hSULT1E1) expressions regulated by cellular redox dependent Nrf-2/NF kappa beta interplay

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Anti-NFkB/NFKB1 p105/p50 Antibody

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