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Datasheet for 100-4185

NFkB P52 Antibody

Overview

Description:	Anti-NFKB p52 (RABBIT) Antibody - 100-4185
Item No.:	100-4185
Size:	100 µL
Applications:	EMSA
Reactivity:	Human
Host Species:	Rabbit

Product Details

Background:	NFkB was originally identified as a factor that binds to the immunoglobulin kappa light chain enhancer in B cells. It was subsequently found in non-B cells in an inactive cytoplasmic form consisting of NFkB bound to IkB. NFkB was originally identified as a heterodimeric DNA binding protein complex consisting of p65 (RelA) and p50 (NFKB1) subunits. Other identified subunits include p52 (NFKB2), c-Rel, and RelB. The p65, cRel, and RelB subunits are responsible for transactivation. The p50 and p52 subunits possess DNA binding activity but limited ability to transactivate. p52 has been reported to form transcriptionally active heterodimers with the NFkB subunit p65, similar to p50/p65 heterodimers. The heterodimers of p52/p65 and p50/p65 are regulated by physical inactivation in the cytoplasm by an inhibitor called IkB-a. IkB-a binds to the p65 subunit, preventing nuclear localization and DNA binding. Low levels of p52 and p50 homodimers can also exist in cells.
Synonyms:	rabbit Anti-NFKB p52 antibody, Nuclear factor NF-kappa-B p100 subunit, DNA-binding factor KBF2, H2TF1, Lymphocyte translocation chromosome 10 protein, Nuclear factor of kappa light polypeptide gene enhancer in B-cells 2, Oncogene Lyt-10, Lyt10, Nuclear factor NF-kappa-B p52 subunit, NFKB2
Host Species:	Rabbit
Clonality:	Polyclonal
Format:	Antiserum

Target Details

Gene Name:	NFKB2

Reactivity:	Human
Immunogen Type:	Conjugated Peptide
Immunogen:	Human NFKB2 p52/p100 peptide corresponding to aa residue 1-19 the human protein conjugated to Keyhole Limpet Hemocyanin (KLH).
Purity/Specificity:	This product was prepared from monospecific antiserum by delipidation and defibrination. Anti-Human NFKB2 p52 may react non-specifically with other proteins. Control peptide (code #100-4185p) will compete only with the specific reaction of antiserum with Human NFKB2 p52.
Relevant Links:	• UniProtKB - Q00653 • NCBI - NP_001070962.1 • GeneID - 4791

Application Details

Suggested Applications:	EMSA (Based on references)
Application Note:	This product was assayed by immunoblot and found to be reactive against Human NFKB2 p52 at a dilution of 1:1000 followed by reaction with Peroxidase conjugated Affinity Purified anti-Rabbit IgG [H&L] (Goat) code #611-1302. Anti- Human NFKB2 p52 is suitable for the detection by immunoblot of Human NFKB2 p52 and its precursor protein p100. Cross reactivity with p52 from other species may occur but has not been specifically determined. Reactivity in supershift assays has not been determined.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	1:5,000 - 1:25,000
WB:	1:500 - 1:3,000

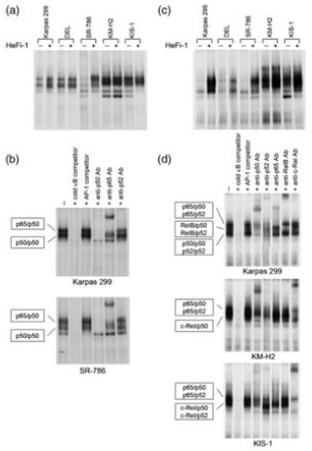
Formulation

Physical State:	Liquid (sterile filtered)
Concentration:	90 mg/mL by Refractometry
Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Preservative:	0.01% (w/v) Sodium Azide
Stabilizer:	None

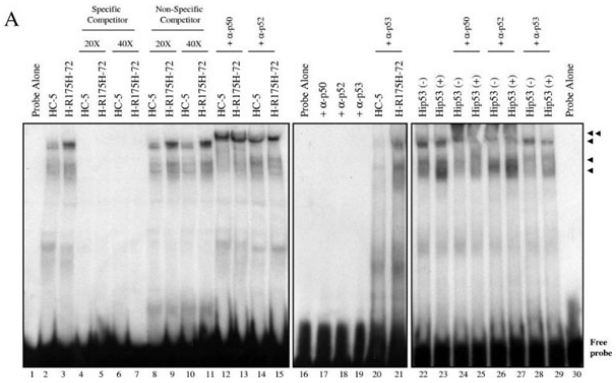
Shipping & Handling

Shipping Condition:	Dry Ice
Storage Condition:	Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.
Expiration:	Expiration date is one (1) year from date of receipt.

Images



Western Blot
EMSA results using Anti-NFKB p52.
Comparison of nuclear factor (NF)-κB binding activity among CD30-positive lymphomas with or without stimulation of CD30. (a) Whole-cell lysates of CD30-positive lymphoma cell lines with or without stimulation of CD30 were incubated with the 32P-labeled HIV κB probe, and κB binding was analyzed by electrophoretic mobility shift assay (EMSA). (b) Supershift assay of CD30-stimulated Karpas 299 and SR-786 using the antibodies indicated. Addition of anti-Bcl-3 antibodies produced no apparent supershifted bands (data not shown). The specificity of κB binding was determined by competition with an excess amount of unlabeled HIV κB probe or control unlabeled AP1 probe (5′-CGCTTGATGAGTCAGCCGGAA-3′). (c) NF-κB DNA-binding activities of p52-containing components were compared among CD30-positive lymphoma cell lines upon stimulation of CD30. The whole-cell lysates were incubated with the 32P-labeled H2 κB probe, and the binding was analyzed by EMSA. (d) Supershift assay of CD30-stimulated Karpas 299, KM-H2 and KIS-1. The cell lysates were first incubated with antibodies against p50, p52, p65, RelB and c-Rel, and the components of the NF-κB-binding complexes in each cell line were determined. The specificity of κB binding was determined by competition with an excess amount of unlabeled H2 κB probe or control unlabeled AP1 probe. Fig 5. PMID: 16108830.



Western Blot

H1299 cells expressing mutant p53-R175H show increased binding to the NF-κB site. (A) Nuclear extracts of HC-5 and H-R175H were incubated as described in Materials and Methods with a 32P-labeled probe containing the sequence of the NF-κB DNA-binding site. Competition studies were done using a specific competitor (lanes 4 to 7) and a nonspecific competitor (lanes 8 to 11) at both 20× (lanes 4, 5, 8, and 9) and 40× (lanes 6, 7, 10, and 11) molar excess. The single arrows indicate the DNA complexes containing NF-κB complexes. Increased NF-κB activity is observed in the presence of mutant p53 (lanes 2, 3, and 8 to 11). The double arrow indicates the supershifted complex in the presence of antibodies specific for NF-κB1 (p50), NF-κB2 (p52), and p53 (lanes 12 to 15, 20 to 21, and 24 to 29, respectively). Equal amounts of protein were added to each lane. Fig. 7 PMID: 16260623.

References

- Scian MJ et al. Tumor-derived p53 mutants induce NF-kappaB2 gene expression. *Mol Cell Biol.* (2005)
- Nishikori M et al. Stimulation of CD30 in anaplastic large cell lymphoma leads to production of nuclear factor-κB p52, which is associated with hyperphosphorylated Bcl-3. *Cancer Sci.* (2005)
- Miller WE et al. The NPC derived C15 LMP1 protein confers enhanced activation of NF-κB and induction of the EGFR in epithelial cells. *Oncogene* (1998)
- Miller WE et al. Interaction of tumor necrosis factor receptor-associated factor signaling proteins with the latent membrane protein 1 PXQXT motif is essential for induction of epidermal growth factor receptor expression *Mol Cell Biol* (1998)

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