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IKB alpha (IKBA) Antibody

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP2506a

Product Information

Application	WB, E
Primary Accession	P25963
Other Accession	NP_065390
Reactivity	Human, Rat, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB2574
Calculated MW	35609
Antigen Region	1-30

Additional Information

Gene ID	4792
Other Names	NF-kappa-B inhibitor alpha, I-kappa-B-alpha, IkB-alpha, IkappaBalpha, Major histocompatibility complex enhancer-binding protein MAD3, NFKBIA, IKBA, MAD3, NFKBI
Target/Specificity	This IKB alpha (IKBA) antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 1-30 amino acids from human IKB alpha (IKBA).
Dilution	WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	IKB alpha (IKBA) Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	NFKBIA
Synonyms	IKBA, MAD3, NFKBI

Function	Inhibits the activity of dimeric NF-kappa-B/REL complexes by trapping REL (RELA/p65 and NFKB1/p50) dimers in the cytoplasm by masking their nuclear localization signals (PubMed:1493333, PubMed:36651806, PubMed:7479976). On cellular stimulation by immune and pro-inflammatory responses, becomes phosphorylated promoting ubiquitination and degradation, enabling the dimeric RELA to translocate to the nucleus and activate transcription (PubMed:7479976, PubMed:7628694, PubMed:7796813, PubMed:7878466).
Cellular Location	Cytoplasm. Nucleus. Note=Shuttles between the nucleus and the cytoplasm by a nuclear localization signal (NLS) and a CRM1-dependent nuclear export.

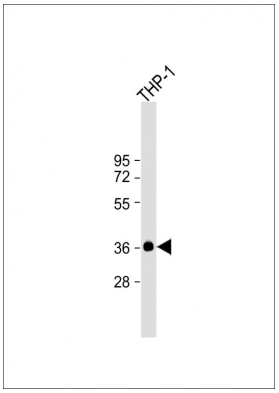
Background

NFKB1 or NFKB2 is bound to REL, RELA, or RELB to form the NFKB complex. The NFKB complex is inhibited by I-kappa-B proteins (NFKBIA or NFKBIB), which inactivate NF-kappa-B by trapping it in the cytoplasm. Phosphorylation of serine residues on the I-kappa-B proteins by kinases (IKBKA, or IKBKB) marks them for destruction via the ubiquitination pathway, thereby allowing activation of the NF-kappa-B complex. Activated NFKB complex translocates into the nucleus and binds DNA at kappa-B-binding motifs such as 5-prime GGGRNNYYCC 3-prime or 5-prime HGGARNYYCC 3-prime (where H is A, C, or T; R is an A or G purine; and Y is a C or T pyrimidine).

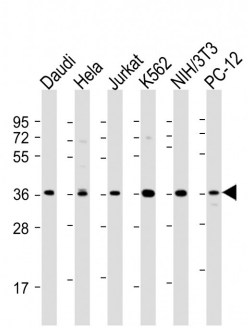
References

Miskolci, V., et al., Arch. Biochem. Biophys. 417(1):44-52 (2003).
Kim, Y.S., et al., J. Biol. Chem. 278(31):28462-28469 (2003).
Parcellier, A., et al., Mol. Cell. Biol. 23(16):5790-5802 (2003).
Takada, Y., et al., J. Biol. Chem. 278(26):24233-24241 (2003).
Place, R.F., et al., J. Cell. Physiol. 195(3):470-478 (2003).

Images



Anti-IKB alpha (IKBA) Antibody at 1:2000 dilution + THP-1 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 36 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



All lanes : Anti-Sumo-site. NFkB Antibody at 1:2000 dilution Lane 1: Daudi whole cell lysate Lane 2: Hela whole cell lysate Lane 3: Jurkat whole cell lysate Lane 4: K562 whole cell lysate Lane 5: NIH/3T3 whole cell lysate Lane 6: PC-12 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 36 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

Citations

- A20 inhibits the release of inflammatory cytokines by suppressing the activation of the nuclear factor-kappa B pathway in osteoarthritic fibroblast-like synoviocytes.
- Nanoformulated paclitaxel and AZD9291 synergistically eradicate non-small-cell lung cancers in vivo.
- Roflumilast reverses polymicrobial sepsis-induced liver damage by inhibiting inflammation in mice.