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IKB alpha Rabbit pAb

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Catalog # AP52345

Product Information

Application	WB, IHC-P, IHC-F, IF
Primary Accession	P25963
Reactivity	Rat, Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	35609
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human NFKBIA
Epitope Specificity	1-120/314
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Cytoplasm. Nucleus. Shuttles between the nucleus and the cytoplasm by a nuclear localization signal (NLS) and a CRM1-dependent nuclear export.
DISEASE	Defects in NFKBIA are the cause of ectodermal dysplasia anhidrotic with T-cell immunodeficiency autosomal dominant (ADEDAID) [MIM:612132]. Ectodermal dysplasia defines a heterogeneous group of disorders due to abnormal development of two or more ectodermal structures. ADEDAID is an ectodermal dysplasia associated with decreased production of pro-inflammatory cytokines and certain interferons, rendering patients susceptible to infection.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	This gene encodes a member of the NF-kappa-B inhibitor family, which contain multiple ankrin repeat domains. The encoded protein interacts with REL dimers to inhibit NF-kappa-B/REL complexes which are involved in inflammatory responses. The encoded protein moves between the cytoplasm and the nucleus via a nuclear localization signal and CRM1-mediated nuclear export. Mutations in this gene have been found in ectodermal dysplasia anhidrotic with T-cell immunodeficiency autosomal dominant disease. [provided by RefSeq, Aug 2011]

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
Dilution	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,ICC/IF=1:100-500,IF=1:100-

500,Flow-Cyt=1 μg/Test

Storage Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

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.

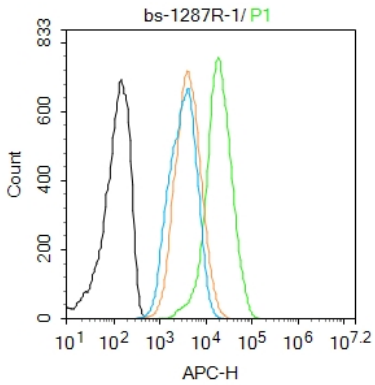
Background

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References

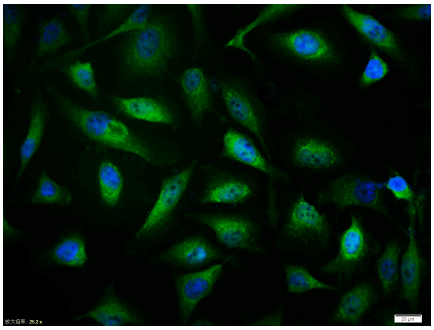
Carninci P.,et al.Science 309:1559-1563(2005).
Rupec R.A.,et al.Immunogenetics 49:395-403(1999).
Yaron A.,et al.Nature 396:590-594(1998).
Spencer E.,et al.Genes Dev. 13:284-294(1999).
Hatakeyama S.,et al.Proc. Natl. Acad. Sci. U.S.A. 96:3859-3863(1999).

Images

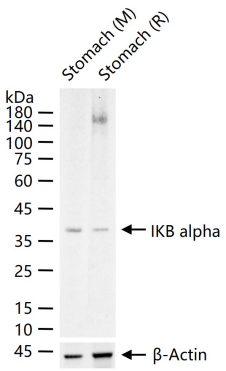


Blank control: Hela.
Primary Antibody (green line): Rabbit Anti-IKB alpha antibody (AP52345)
Dilution: 1 μg /10^6 cells;
Isotype Control Antibody (orange line): Rabbit IgG .
Secondary Antibody : Goat anti-rabbit IgG-AF647
Dilution: 1 μg /test.
Protocol
The cells were fixed with 4% PFA (10min at room temperature)and then permeabilized with 90% ice-cold methanol for 20 min at -20℃. The cells were then incubated in 5%BSA to block non-specific protein-protein interactions for 30 min at room temperature .Cells stained with Primary Antibody for 30 min at room temperature. The secondary antibody used for 40 min at

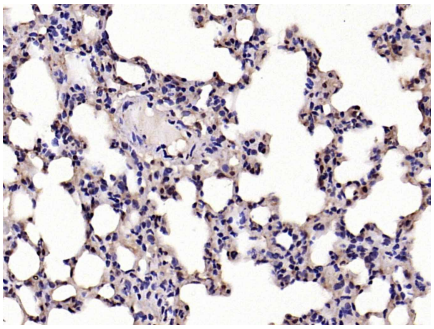
room temperature. Acquisition of 20,000 events was performed.



Tissue/cell:Hela cell; 4% Paraformaldehyde-fixed; Triton X-100 at room temperature for 20 min; Blocking buffer (normal goat serum,C-0005) at 37°C for 20 min; Antibody incubation with (IKB alpha) polyclonal Antibody, Unconjugated (AP52345) 1:100, 90 minutes at 37°C; followed by a FITC conjugated Goat Anti-Rabbit IgG antibody at 37°C for 90 minutes, DAPI (blue, C02-04002) was used to stain the cell nuclei.



25 ug total protein per lane of various lysates (see on figure) probed with IKB alpha polyclonal antibody, unconjugated (AP52345) at 1:1000 dilution and 4°C overnight incubation. Followed by conjugated secondary antibody incubation at r.t. for 60 min.



Paraformaldehyde-fixed, paraffin embedded (mouse lung); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (IKB alpha) Polyclonal Antibody, Unconjugated (AP52345) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.