OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for TA336372

IKB alpha (NFKBIA) Mouse Monoclonal Antibody [Clone ID: 6A920]

Product data:

Product Type:	Primary Antibodies
Clone Name:	6A920
Applications:	CyTOF-ready, FC, ICC/IF, IHC, IP, Simple Western, WB
Recommended Dilution:	Flow Cytometry: 0.25-1 ug/10^6 cells, Immunoprecipitation: 1 ug/ml, Western Blot: 1-2 ug/ml, Immunohistochemistry: 1:20-1:1000, Simple Western: 1:20, Immunohistochemistry-Paraffin: 1:100, Immunocytochemistry/ Immunofluorescence: 1:100-1:1000, Knockout Validated, CyTOF-ready
Reactivity:	Human, Mouse, Rat
Host:	Mouse
Isotype:	IgG1, kappa
Clonality:	Monoclonal
Immunogen:	A recombinant protein corresponding to amino acid residues 32-291 of human IkBa was used as immunogen.
Formulation:	PBS containing 0.05% BSA, 0.05% Sodium Azide. Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Concentration:	lot specific
Purification:	Protein G purified
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Gene Name:	NFKB inhibitor alpha
Database Link:	NP_065390 Entrez Gene 18035 MouseEntrez Gene 25493 RatEntrez Gene 4792 Human P25963

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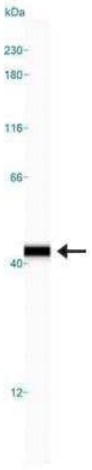
Background: NF-kB is silenced in the cytoplasm by an inhibitory protein, IkB (1). Synthesis of IkBa is autoregulated (2). IkB proteins are phosphorylated by IkB kinase complex consisting of at least three proteins, IKK1/a, IKK2/b, and IKK3/g (3-6). External stimuli such as tumor necrosis factor or other cytokines results in phosphorylation and degradation of IkB releasing NF-kB dimers. NF-kB dimer subsequently translocates to the nucleus and activates target genes. Six members of IkB family members have been identified (1). One of the first gene induced following NF-kB activation is IkBa.

Synonyms: IKBA; MAD-3; NFKBI

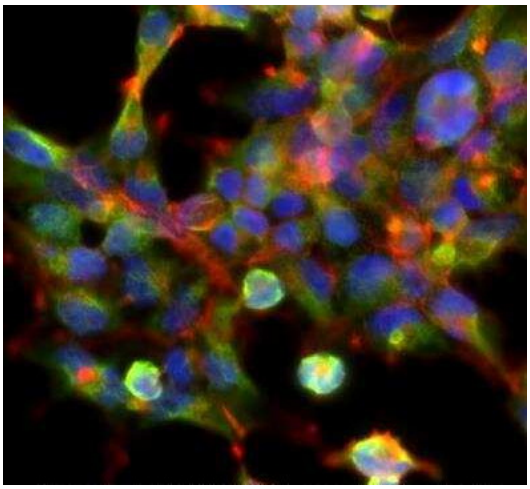
Protein Families: Druggable Genome

Protein Pathways: Adipocytokine signaling pathway, Apoptosis, B cell receptor signaling pathway, Chemokine signaling pathway, Chronic myeloid leukemia, Cytosolic DNA-sensing pathway, Epithelial cell signaling in Helicobacter pylori infection, Neurotrophin signaling pathway, NOD-like receptor signaling pathway, Pathways in cancer, Prostate cancer, RIG-I-like receptor signaling pathway, Small cell lung cancer, T cell receptor signaling pathway, Toll-like receptor signaling pathway

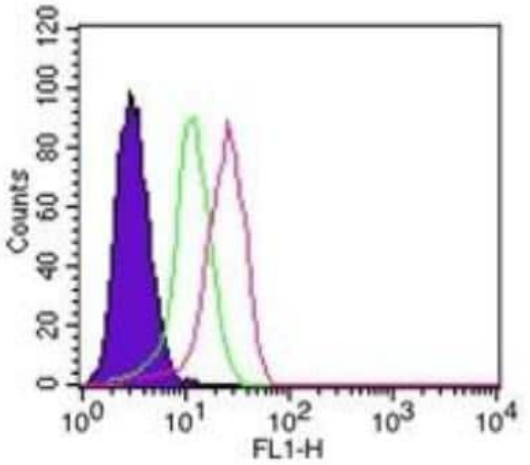
Product images:



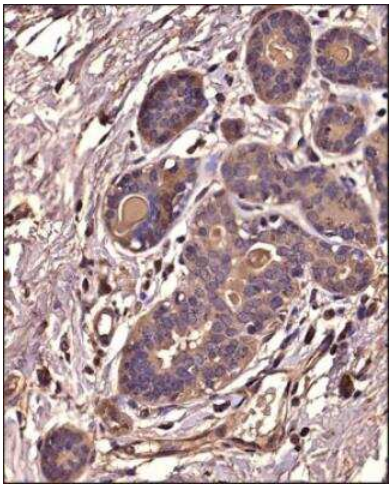
Simple Western: IkB-alpha Antibody (6A920) TA336372 - Simple Western lane view shows a specific band for IKB alpha in 0.5 mg/ml of NIH-3T3 lysate. This experiment was performed under reducing conditions using the 12-230 kDa separation system.



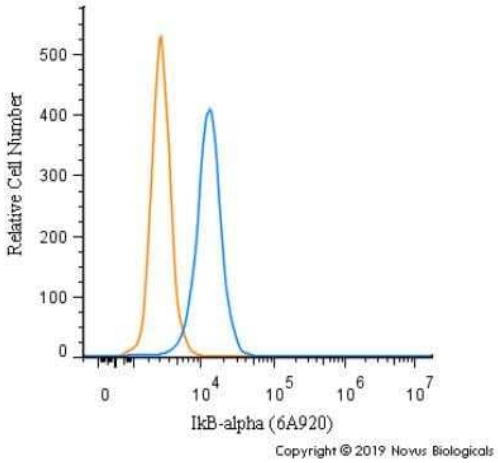
Immunocytochemistry/Immunofluorescence: IkB-alpha Antibody (6A920) TA336372 - Hek293 cells were fixed for 10 minutes using 10% formalin and then permeabilized for 5 minutes using 1X PBS + 0.05% Triton-X100. The cells were incubated with anti-IkB-alpha (6A920) at 2 ug/ml overnight at 4C and detected with an anti-mouse Dylight 488 (Green) at a 1:500 dilution. Actin was detected with Phalloidin 568 (Red) at a 1:200 dilution. Nuclei were counterstained with DAPI (Blue). Cells were imaged using a 40X objective.



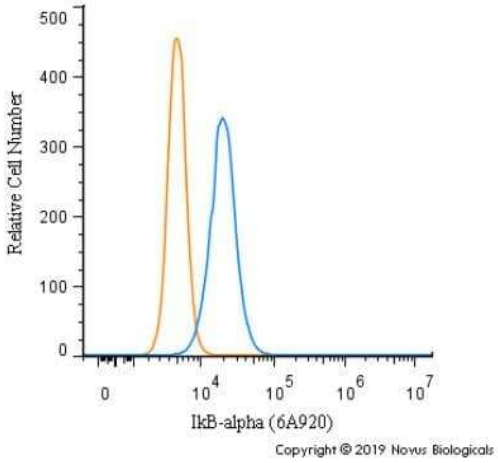
Flow Cytometry: IkB-alpha Antibody (6A920) TA336372 - Intracellular staining of 10^6 ThP-1 cells using 0.25 ug of TA336372. Shaded histogram represents cells alone, green represents the isotype control, and red represents the IkBa antibody. Novus's intracellular flow kit was used for this test, and an anti-mouse IgG FITC conjugated secondary.



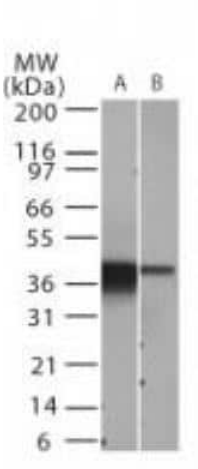
Immunohistochemistry-Paraffin: IkB-alpha Antibody (6A920) TA336372 - Analysis of a FFPE tissue section of human breast using 1:200 dilution of IkB-alpha clone 6A920 antibody. The staining was developed using HRP labeled anti-rabbit secondary antibody and DAB reagent, and nuclei of cells were counter-stained with hematoxylin. Cytoplasmic and membrane staining of glandular cells was observed.



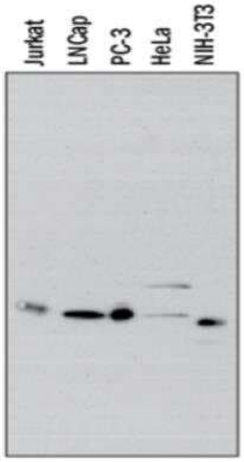
Flow Cytometry: IkB-alpha Antibody (6A920) TA336372 - An intracellular stain was performed on Hek293 cells with IkB-alpha Antibody [6A920] TA336372 (blue) and a matched isotype control (orange). Cells were fixed with 4% PFA and then permeabilized with 0.1% saponin. Cells were incubated in an antibody dilution of 1.0 ug/mL for 30 minutes at room temperature, followed by Mouse IgG (H+L) Cross-Adsorbed Secondary Antibody, Dylight 550.



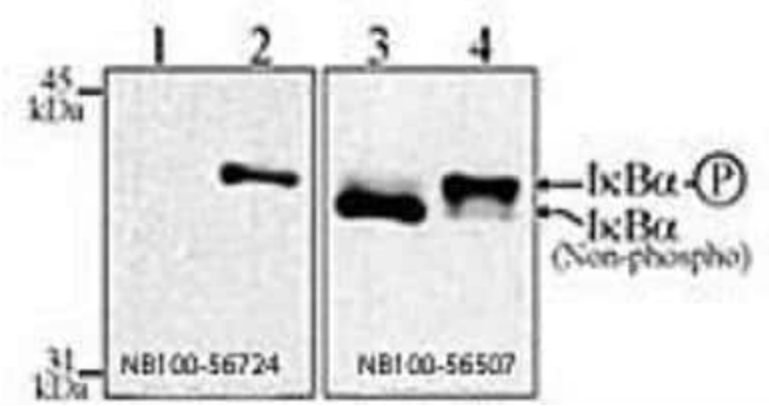
Flow Cytometry: IkB-alpha Antibody (6A920) TA336372 - An intracellular stain was performed on NIH3T3 cells with IkB-alpha Antibody [6A920] TA336372 (blue) and a matched isotype control (orange). Cells were fixed with 4% PFA and then permeabilized with 0.1% saponin. Cells were incubated in an antibody dilution of 1.0 ug/mL for 30 minutes at room temperature, followed by Mouse IgG (H+L) Cross-Adsorbed Secondary Antibody, Dylight 550.



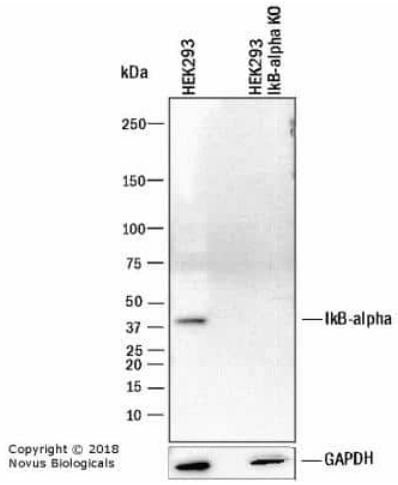
Western Blot: IkB-alpha Antibody (6A920) TA336372 - IkBa using TA336372 at 2 ug/ml in (A) Daudi and (B) NIH 3T3 whole cell lysate.



Western Blot: IkB-alpha Antibody (6A920) TA336372 - Lysates of Jurkat human acute T cell leukemia cell line, LNCaP human prostate cancer cell line, PCx2011;3 human prostate cancer cell line, HeLa human cervical epithelial carcinoma cell line, and NIHx2011;3T3 mouse embryonic fibroblast cell line. PVDF membrane was probed with 0.5 ug/mL mouse anti-IkB-a monoclonal (TA336372, Novus Biologicals), followed by 1:2000 dilution of the appropriate HRP-conjugated secondary antibody, donkey anti-mouse IgG.



Western Blot: IkB-alpha Antibody (6A920) TA336372 - Jurkat cells were treated for 30 min with 100 ug/ml ALLN (N-Acetyl-Leu-Leu-Norleucinal; a Calpain inhibitor and also proteasome inhibitor that prevents IkBa dephosphorylation) followed by incubation with (lanes 2 & 4) or without 1 nM TNF-a (1 & 3). The membranes were blotted with NB100-56724 (lanes 1 & 2) or TA336372 (that recognizes both non-phospho and phosphorylated forms of IkBa) and immunoreactivity was detected by ECL. The data shows that NB100-56724 detects specifically the phosphorylated form of IkBa.



Knockout Validated: IkB-alpha Antibody (6A920) TA336372 - Western blot shows lysates of HEK293 human embryonic kidney parental cell line and IkB-alpha knockout (KO) HEK293 human embryonic kidney cell line. PVDF membrane was probed with 2 ug/ml of Mouse Anti-Human IkB-alpha monoclonal Antibody (Catalog # TA336372) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody. Specific band was detected for IkB-alpha at approximately 38 kDa (as indicated) in the parental HEK293 celll line, but is not detectable in the knockout HEK293 cell line. This experiment was conducted under reducing conditions.