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Product datasheet for TA336464

IKB alpha (NFKBIA) Mouse Monoclonal Antibody [Clone ID: 39A1413]

Product data:

Product Type:	Primary Antibodies
Clone Name:	39A1413
Applications:	IP, Simple Western, WB
Recommended Dilution:	Immunoprecipitation: 1-2 ug/ml, Western Blot: 1-2 ug/ml, Simple Western: 1:50
Reactivity:	Human, Mouse, Rat, Bovine, Canine, Porcine
Host:	Mouse
Isotype:	IgG1, kappa
Clonality:	Monoclonal
Immunogen:	This monoclonal antibody was raised against a synthetic peptide containing phosphorylated serines at amino acid residues 32 and 36 of human IkBa.
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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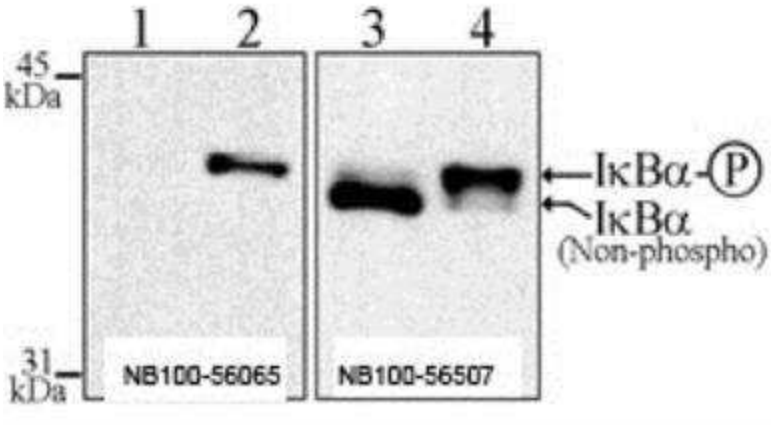
Background: NF-kB is silenced in the cytoplasm by an inhibitory protein, IkB. Synthesis of IkBa is autoregulated. IkB proteins are phosphorylated by IkB kinase complex consisting of at least three proteins, IKK1/a, IKK2/b, and IKK3/g. External stimuli such as tumor necrosis factor or other cytokines initiates a signal transduction cascade that leads to the activation of IkB-kinase complex that specifically phosphorylates IkBa on Serine-32 and Serine-36. Phosphorylation of these sites leads to ubiquitination of IkBa and subsequent degradation by the 26 S proteasome. Degradation of IkBa results in unmasking of the nuclear localization signal of NF-kB dimers, which subsequently translocates to the nucleus and activates target genes (7,8). Six members of IkB family members have been identified. One of the first gene induced following NF-kB activation is IkBa.

Synonyms: IKBA; MAD-3; NFKBI

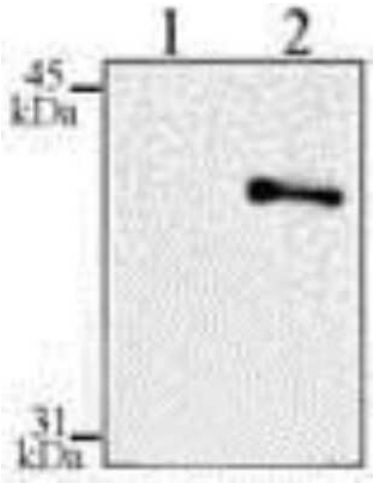
Protein Families: Druggable Genome

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:



Western Blot: IkB-alpha [p Ser32, p Ser36] Antibody (39A1413) TA336464 - Analysis using the Biotin conjugate of TA336464. Detection of 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 this antibody.



Western Blot: IkB-alpha [p Ser32, p Ser36] Antibody (39A1413) TA336464 - 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 (lane 2) or without 1 nM TNF-a (lane 1). The membrane was blotted with TA336464 and immunoreactivity was detected by ECL. The data shows that TA336464 detects specifically the phosphorylated form of IkBa.