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Product datasheet for TA336452

IKK alpha (CHUK) Mouse Monoclonal Antibody [Clone ID: 14A231]

Product data:

Product Type:	Primary Antibodies
Clone Name:	14A231
Applications:	ChIP, FC, ICC/IF, IHC, IP, WB
Recommended Dilution:	Flow Cytometry: (Intracellular): 0.25-0.5 ug/10^6 cells, Chromatin Immunoprecipitation (ChIP): 1:10-1:500, Western Blot: 1 ug/ml, Simple Western: 10 ug/ml, Immunoprecipitation: 1-2 ug/ml, Flow (Intracellular): Flow Cytometry: (Intracellular): 0.25-0.5 ug/10^6 cells, Immunohistochemistry-Frozen, Chromatin Immunoprecipitation: 1:10 - 1:500, Immunohistochemistry: 1:200, Immunohistochemistry-Paraffin: 5ug/ml, Immunocytochemistry/ Immunofluorescence: 1:10
Reactivity:	Human, Mouse, Primate
Host:	Mouse
Isotype:	IgG1, kappa
Clonality:	Monoclonal
Immunogen:	This antibody was raised against a His-tagged full-length human IKK alpha protein.
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:	conserved helix-loop-helix ubiquitous kinase
Database Link:	NP_001269 Entrez Gene 12675 MouseEntrez Gene 1147 Human O15111

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Background: NF-kB (nuclear factor kB) is sequestered in the cytoplasm by IkB family of inhibitory proteins that mask the nuclear localization signal of NF-kB thereby preventing translocation of NF-kB to the nucleus. 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. 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. In vitro, IKK1/a and IKK2/b can form homo- and heterodimers that can phosphorylate IkBs at the regulatory serine residues directly. IKK1/a and IKK2/b are phosphorylated by NF-kB-inducing kinase (NIK) and MAP kinase kinase kinase-1 (MEKK1), respectively. Targeted disruption of IKK1/a gene in mice results in skin and limb abnormalities and death of newborns.

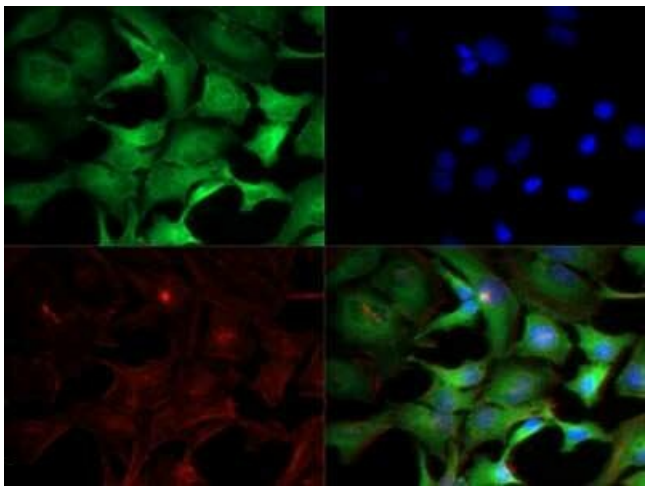
Synonyms: IKBKA; IKK-alpha; IKK1; IKKA; NFKBIKA; TCF16

Note: Use in Flow Intracellular reported in scientific literature (PMID 24804954)

Protein Families: Druggable Genome, Protein Kinase

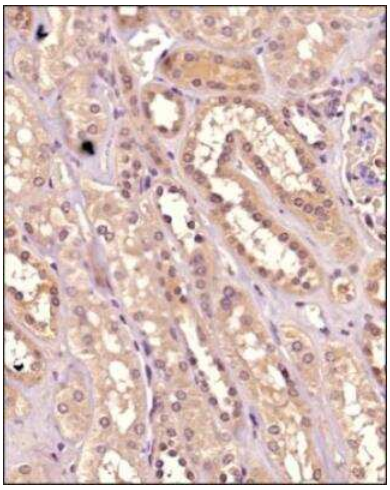
Protein Pathways: Acute myeloid leukemia, Adipocytokine signaling pathway, Apoptosis, B cell receptor signaling pathway, Chemokine signaling pathway, Chronic myeloid leukemia, Cytosolic DNA-sensing pathway, Epithelial cell signaling in Helicobacter pylori infection, MAPK signaling pathway, NOD-like receptor signaling pathway, Pancreatic cancer, 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:

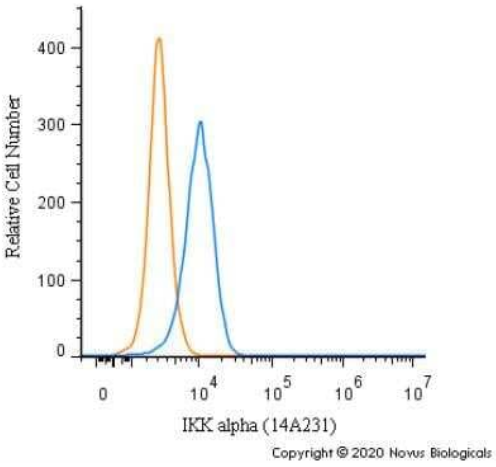


Immunocytochemistry/Immunofluorescence: IKK alpha Antibody (14A231) - BSA Free TA336452 - Antibody was tested in HeLa cells with Dylight 488 (green). Nuclei and alpha-tubulin were counterstained with DAPI (blue) and Dylight 550 (red). An antibody dilution of 1:10 was used. Image objective 40X.

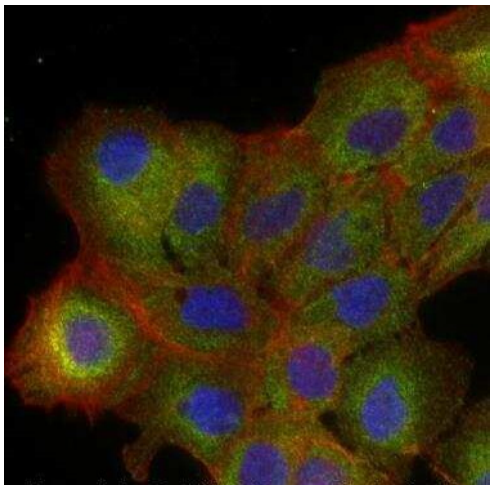
Simple Western: IKK alpha Antibody (14A231) - BSA Free TA336452 - IKK alpha Antibody (14A231) TA336452 - Image shows a specific band for IKK alpha in 0.5 mg/mL of Daudi (left) and U937 (right) lysate. This exeriment was performed under reducing conditions using the 12-230 kDa separation system.



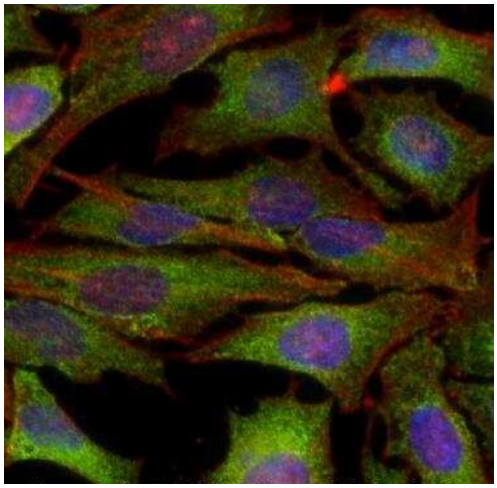
Immunohistochemistry-Paraffin: IKK alpha Antibody (14A231) - BSA Free TA336452 - Analysis of a FFPE tissue section of human kidney using 1:200 dilution of IKK alpha clone 14A231 antibody. The staining was developed using HRP labeled anti-rabbit secondary antibody and DAB reagent, and nuclei of cells were counter-stained with hematoxylin.



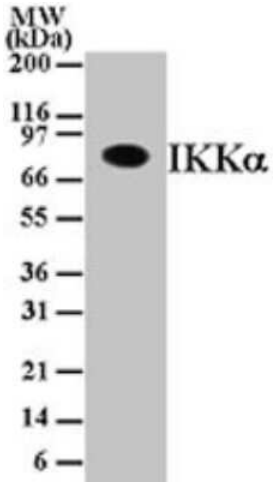
Flow Cytometry: IKK alpha Antibody (14A231) - BSA Free TA336452 - An intracellular stain was performed on Hek293 cells with IKK alpha Antibody (14A231) TA336452 (blue) and a matched isotype control (orange). Cells were fixed with 4% PFA and then permeabilized with 0.1% saponin. Cells were incubated in an antibody dilution of 2.5 ug/mL for 30 minutes at room temperature, followed by Mouse IgG (H+L) Cross-Adsorbed Secondary Antibody, Dylight 550 (35503, Thermo Fisher).



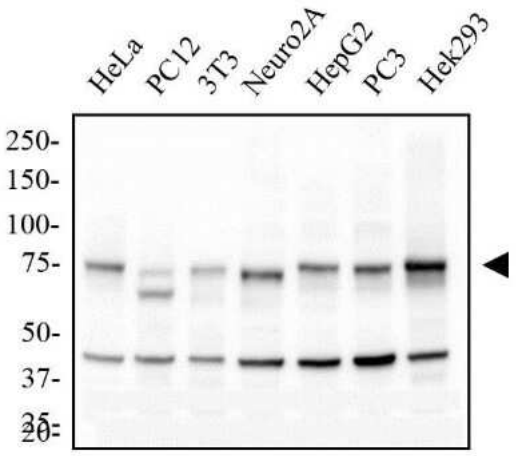
Immunocytochemistry/Immunofluorescence: IKK alpha Antibody (14A231) - BSA Free TA336452 - A431 cells were fixed for 10 minutes using 10% formalin and then permeabilized for 5 minutes using 1X PBS + 0.05% Triton X-100. The cells were incubated with anti-IKK alpha Antibody (14A231) at 2 ug/mL overnight 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.



Immunocytochemistry/Immunofluorescence: IKK alpha Antibody (14A231) - BSA Free TA336452 - HeLa cells were fixed for 10 minutes using 10% formalin and then permeabilized for 5 minutes using 1X PBS + 0.05% Triton X-100. The cells were incubated with anti-IKK alpha Antibody (14A231) 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.



Western Blot: IKK alpha Antibody (14A231) - BSA Free TA336452 - IKK alpha Antibody (14A231) TA336452 - Analysis of IKK alpha in Daudi cell lysate using IKK alpha antibody at 1 ug/mL.



Western Blot: IKK alpha Antibody (14A231) - BSA Free TA336452 - IKK alpha Antibody (14A231) TA336452 - Total protein from various Human, Mouse and Rat cell lines were separated on a 12% gel by SDS-PAGE, transferred to PVDF membrane and blocked in 5% non-fat milk in TBST. The membrane was probed with 1.0 ug/mL anti-IKK-alpha in 1% non-fat milk in TBST and detected with an anti-mouse HRP secondary antibody using chemiluminescence.