Product Datasheet

IKK alpha Antibody (14A231) - Azide Free
NBP2-27409

Unit Size: 0.1 mg

Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.

Publications: 43

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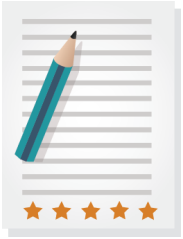
Updated 10/23/2024 v.20.1



NBP2-27409

IKK alpha Antibody (14A231) - Azide Free

Product Information

Unit Size	0.1 mg
Concentration	1.0 mg/ml
Storage	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Clonality	Monoclonal
Clone	14A231
Preservative	No Preservative
Isotype	IgG1 Kappa
Purity	Protein G purified
Buffer	PBS

Product Description

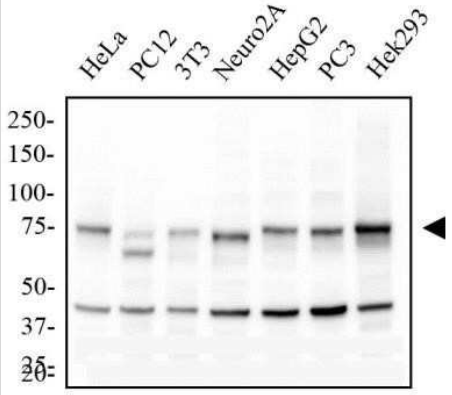
Host	Mouse
Gene ID	1147
Gene Symbol	CHUK
Species	Human, Mouse, Rat, Primate
Reactivity Notes	New World Monkey
Immunogen	This antibody was raised against a His-tagged full-length human IKK alpha protein.

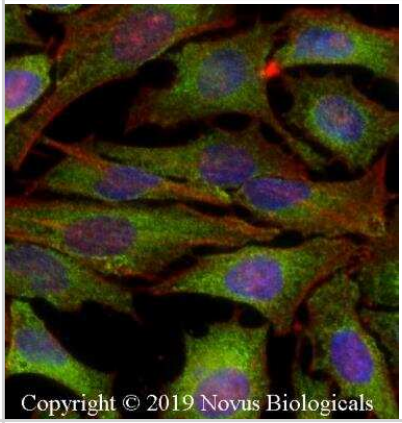
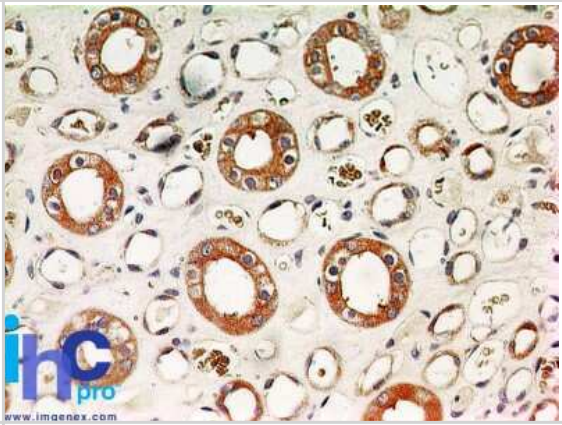
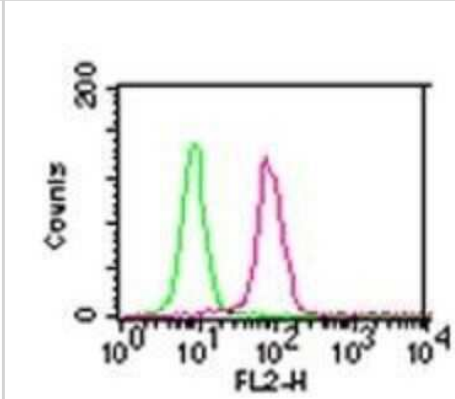
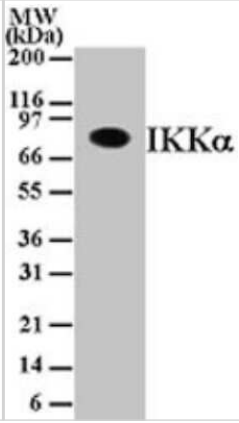
Product Application Details

Applications	Western Blot, Simple Western, Flow Cytometry, Flow (Intracellular), Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Frozen, Immunohistochemistry-Paraffin, Immunoprecipitation, CyTOF-ready
Recommended Dilutions	Western Blot 1ug/ml, Simple Western, Flow Cytometry 1ul/1 million cells, Immunohistochemistry, Immunocytochemistry/ Immunofluorescence, Immunoprecipitation 1-2ug/ml, Immunohistochemistry-Paraffin 5ug/ml, Immunohistochemistry-Frozen reported in scientific literature (PMID 25133425), Flow (Intracellular) reported in scientific literature (PMID 24804954), CyTOF-ready
Application Notes	An 85 kDa band should be observed. In Simple Western only 10-15 uL of the recommended dilution is used per data point.

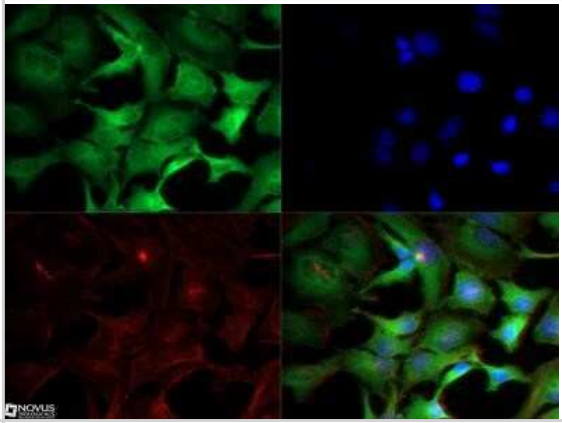
Images

Western Blot: IKK alpha Antibody (14A231) - Azide Free [NBP2-27409] - 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. Image using the BSA free format of this product.

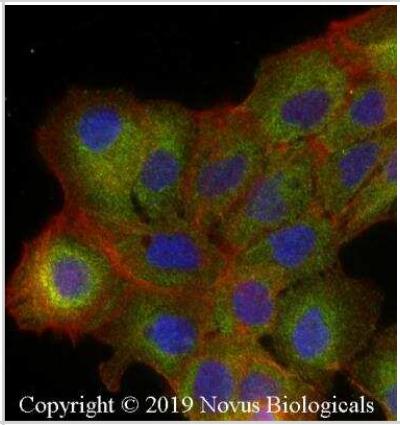


Immunocytochemistry/Immunofluorescence: IKK alpha Antibody (14A231) - Azide Free [NBP2-27409] - HeLa cells were fixed for 10 minutes using 10% formalin and then permeabilized for 5 minutes using 1X PBS + 0.05% Triton X-100. The cells were incubated with anti-IKK alpha Antibody (14A231) at 2 ug/mL overnight 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.	
Immunohistochemistry-Paraffin: IKK alpha Antibody (14A231) - Azide Free [NBP2-27409] - FFPE human kidney stained with IKKa antibody at 5 ug/mL. Staining of formalin-fixed tissues is enhanced by boiling tissue sections in 10 mM sodium citrate buffer, pH 6.0 for 10-20 min followed by cooling at RT for 20 min.	
Flow Cytometry: IKK alpha Antibody (14A231) - Azide Free [NBP2-27409] - Intracellular staining of HEK293 cells using 0.5 ug of IKKa antibody (red) and isotype control (green). Intracellular flow kit was used for this test, and an anti-mouse IgG1 PE conjugated secondary antibody.	
Western Blot: IKK alpha Antibody (14A231) - Azide Free [NBP2-27409] - Analysis of IKK in Daudi cell lysate using IKKa monoclonal antibody at 1 ug/mL.	

Immunocytochemistry/Immunofluorescence: IKK alpha Antibody (14A231) - Azide Free [NBP2-27409] - IKK alpha 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.



Immunocytochemistry/Immunofluorescence: IKK alpha Antibody (14A231) - Azide Free [NBP2-27409] - 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.



Simple Western: IKK alpha Antibody (14A231) - Azide Free [NBP2-27409] - Analysis using Azide/BSA FREE version of NBP2-27409. Simple Western lane view 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.

Publications

Fang X, Jeong JH, Long X et al. IKKalpha-mediated biogenesis of miR-196a through interaction with Drosha regulates the sensitivity of cancer cells to radiotherapy. Cell Death Differ. [PMID: 27058318]

Details:
Citation using the Azide Free form of this antibody.

Phromnoi K, Reuter S, Sung B et al. A novel pentamethoxyflavone down-regulates tumor cell survival and proliferative and angiogenic gene products through inhibition of IkB kinase activation and sensitizes tumor cells to apoptosis by cytokines and chemotherapeutic agents. Mol Pharmacol. 2011-02-01 [PMID: 20930110]

Details:
KBM-5 cells: 1. FLIP (IMG-116-1, -2): WB (Fig 4A) 2. IKKb/IKK2 (IMG-129A): IP Kinase Assay (Fig 2D), IP/WB (Fig 2D). Note, the antibody IP'd an active kinase. The antibody co'IP'd IKKa. 3. IKKa (IMG-136a): WB (Figs 2C, 2D). Note Fig 2D was generated with an IP (IKKb, IMG-129A)/WB (IKKa, IMG-136a) assay. Note: The KBM-5 (human chronic myeloid leukemia) cells were incubated with PMF then treated with TNF-alpha, Figs 2C, 2D, 4A.

Harikumar KB, Sung B, Pandey MK et al. Escin, a pentacyclic triterpene, chemosensitizes human tumor cells through inhibition of nuclear factor-kappaB signaling pathway Mol Pharmacol 2010-05-01 [PMID: 20103608]

Details:
This citation used the Alexa Fluor 488 version of this antibody.

Kunnumakkara AB, Ichikawa H, Anand P et al. Coronarin D, a labdane diterpene, inhibits both constitutive and inducible nuclear factor-kappa B pathway activation, leading to potentiation of apoptosis, inhibition of invasion, and suppression of osteoclastogenesis. Mol Cancer Ther. 2008-10-01 [PMID: 18852134] (WB, Human)

Details:
IKK-alpha/IKK1 (IMG-136A): WB (human KMB-5 cells), Fig. 2C. 2. IKKb/IKK2 (IMG-129A): WB (human KMB-5 cells), Fig. 2C.

Pandey MK, Sung B, Kunnumakkara AB et al. Berberine modifies cysteine 179 of IkappaBalpha kinase, suppresses nuclear factor-kappaB-regulated antiapoptotic gene products, and potentiates apoptosis. Cancer Res. 2008-07-01 [PMID: 18593939]

Details:
IMG-136A (IKKa/IKK1): WB (human multiple myeloma U266 cells), Fig. 3A, C. 2. IMG-129A (IKKb/IKK1): WB (human multiple myeloma U266 cells), Fig. 3A, C.

Saito N, Courtois G, Chiba A et al. Two carboxyl-terminal activation regions of Epstein-Barr virus latent membrane protein 1 activate NF-kappaB through distinct signaling pathways in fibroblast cell lines. J Biol Chem. 2003-11-21 [PMID: 12968033]

Koul D, Yao Y, Abbruzzese JL et al. Tumor suppressor MMAC/PTEN inhibits cytokine-induced NFkappaB activation without interfering with the IkappaB degradation pathway. J Biol Chem. 2001-04-06 [PMID: 11278366]

Chen LW, Egan L, Li ZW et al. The two faces of IKK and NF-kappaB inhibition: prevention of systemic inflammation but increased local injury following intestinal ischemia-reperfusion. Nat Med. 2003-05-01 [PMID: 12692538]

Dejardin E, Droin NM, Delhase M et al. The lymphotoxin-beta receptor induces different patterns of gene expression via two NF-kappaB pathways. Immunity. 2002-10-01 [PMID: 12387745]

Makris C, Roberts JL, Karin M. The carboxyl-terminal region of IkappaB kinase gamma (IKKgamma) is required for full IKK activation. Mol Cell Biol. 2002-09-01 [PMID: 12192055]

Majumdar S, Lamothe B, Aggarwal BB. Thalidomide suppresses NF-kappa B activation induced by TNF and H2O2, but not that activated by ceramide, lipopolysaccharides, or phorbol ester. J Immunol. 2002-03-15 [PMID: 11884428]

Delhase M, Kim SY, Lee H et al. TANK-binding kinase 1 (TBK1) controls cell survival through PAI-2/serpinB2 and transglutaminase 2. Proc Natl Acad Sci U S A. 2012-01-24 [PMID: 22203995]

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NB720-B	Rabbit anti-Mouse IgG (H+L) Secondary Antibody [Biotin]
NBP1-43319-0.5mg	Mouse IgG1 Kappa Isotype Control (P3.6.2.8.1)
NBP2-27409APC	IKK alpha Antibody (14A231) [Allophycocyanin]

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This product is for research use only and is not approved for use in humans or in clinical diagnosis. Primary Antibodies are guaranteed for 1 year from date of receipt.

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