

Datasheet for ABIN681508
anti-IKK alpha antibody (AA 551-650)[Go to Product page](#)

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Overview

Quantity:	100 µL
Target:	IKK alpha (CHUK)
Binding Specificity:	AA 551-650
Reactivity:	Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This IKK alpha antibody is un-conjugated
Application:	ELISA, Immunohistochemistry (Paraffin-embedded Sections) (IHC (p)), Immunofluorescence (Cultured Cells) (IF (cc)), Immunofluorescence (Paraffin-embedded Sections) (IF (p)), Immunohistochemistry (Frozen Sections) (IHC (fro))

Product Details

Immunogen:	KLH conjugated synthetic peptide derived from human IKK alpha
Isotype:	IgG
Cross-Reactivity:	Mouse, Rat
Predicted Reactivity:	Human,Dog,Horse
Purification:	Purified by Protein A.

Target Details

Target:	IKK alpha (CHUK)
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Target Details

Alternative Name:	IKK alpha (CHUK Products)
Background:	<p>Synonyms: Inhibitor of nuclear factor kappa-B kinase subunit alpha, I-kappa-B kinase alpha, IKK-A, IKK-alpha, IKBKA, IkappaB kinase, Conserved helix-loop-helix ubiquitous kinase, I-kappa-B kinase 1, IKK1, Nuclear factor NF-kappa-B inhibitor kinase alpha, NFKBIKA, Transcription factor 16, TCF-16, CHUK, IKKA, TCF16</p> <p>Background: Serine kinase that plays an essential role in the NF-kappa-B signaling pathway which is activated by multiple stimuli such as inflammatory cytokines, bacterial or viral products, DNA damages or other cellular stresses. Acts as part of the canonical IKK complex in the conventional pathway of NF-kappa-B activation and phosphorylates inhibitors of NF-kappa-B on serine residues. These modifications allow polyubiquitination of the inhibitors and subsequent degradation by the proteasome. In turn, free NF-kappa-B is translocated into the nucleus and activates the transcription of hundreds of genes involved in immune response, growth control, or protection against apoptosis. Negatively regulates the pathway by phosphorylating the scaffold protein TAXBP1 and thus promoting the assembly of the A20/TNFAIP3 ubiquitin-editing complex (composed of A20/TNFAIP3, TAX1BP1, and the E3 ligases ITCH and RNF11). Therefore, CHUK plays a key role in the negative feedback of NF-kappa-B canonical signaling to limit inflammatory gene activation. As part of the non-canonical pathway of NF-kappa-B activation, the MAP3K14-activated CHUK/IKKA homodimer phosphorylates NFKB2/p100 associated with RelB, inducing its proteolytic processing to NFKB2/p52 and the formation of NF-kappa-B RelB-p52 complexes. In turn, these complexes regulate genes encoding molecules involved in B-cell survival and lymphoid organogenesis. Participates also in the negative feedback of the non-canonical NF-kappa-B signaling pathway by phosphorylating and destabilizing MAP3K14/NIK. Within the nucleus, phosphorylates CREBBP and consequently increases both its transcriptional and histone acetyltransferase activities. Modulates chromatin accessibility at NF-kappa-B-responsive promoters by phosphorylating histones H3 at 'Ser-10' that are subsequently acetylated at 'Lys-14' by CREBBP. Additionally, phosphorylates the CREBBP-interacting protein NCOA3.</p>
Gene ID:	1147
UniProt:	O15111
Pathways:	PI3K-Akt Signaling , NF-kappaB Signaling , RTK Signaling , TCR Signaling , TLR Signaling , Fc-epsilon Receptor Signaling Pathway , EGFR Signaling Pathway , Neurotrophin Signaling Pathway , Activation of Innate immune Response , Hepatitis C , Toll-Like Receptors Cascades , BCR Signaling , Ubiquitin Proteasome Pathway , S100 Proteins

Application Details

Application Notes:

ELISA 1:500-1000

IHC-P 1:200-400

IHC-F 1:100-500

IF(IHC-P) 1:50-200

IF(IHC-F) 1:50-200

IF(ICC) 1:50-200

Restrictions: For Research Use only

Handling

Format: Liquid

Concentration: 1 µg/µL

Buffer: 0.01M TBS(pH 7.4) with 1 % BSA, 0.02 % Proclin300 and 50 % Glycerol.

Preservative: ProClin

Precaution of Use: This product contains ProClin: a POISONOUS AND HAZARDOUS SUBSTANCE, which should be handled by trained staff only.

Storage: 4 °C, -20 °C

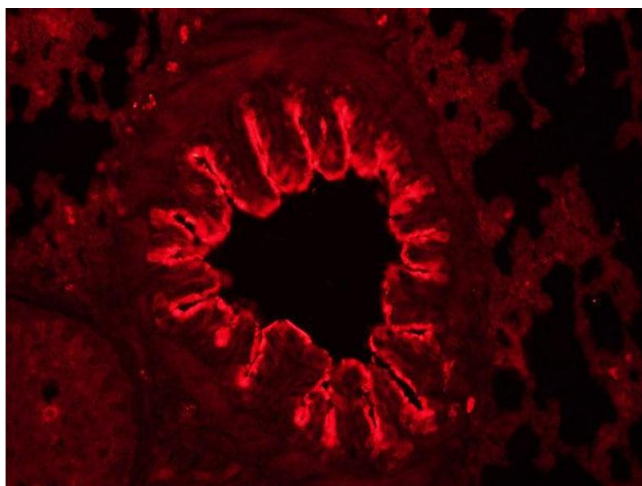
Storage Comment: Shipped at 4°C. Store at -20°C for one year. Avoid repeated freeze/thaw cycles.

Expiry Date: 12 months

Publications

Product cited in: Huang, Yang, Wang, Ma, Cui, Huang, Sheng, Weng, Xu: "Immunostimulatory activity of protein hydrolysate from oviductus ranae on macrophage in vitro." in: **Evidence-based complementary and alternative medicine : eCAM**, Vol. 2014, pp. 180234, (2015) ([PubMed](#)).

Luo, Yang, Tang, Yao, Kong, He, Zhou: "Kaempferol alleviates insulin resistance via hepatic IKK/NF-?B signal in type 2 diabetic rats." in: **International immunopharmacology**, Vol. 28, Issue 1, pp. 744-50, (2015) ([PubMed](#)).



Immunofluorescence

Image 1. Formalin-fixed and paraffin-embedded mouse lung labeled with Rabbit Anti-IKK alpha Polyclonal Antibody, Unconjugated used at 1:200 dilution for 40 minutes at 37°C.