

Datasheet for ABIN743318

## anti-IKK-alpha /IKK-beta antibody (pSer176, pSer180)



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### Overview

Quantity:	100 µL
Target:	IKK-alpha /IKK-beta
Binding Specificity:	pSer176, pSer180
Reactivity:	Mouse, Human
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This IKK-alpha /IKK-beta antibody is un-conjugated
Application:	Western Blotting (WB), ELISA, Immunofluorescence (Cultured Cells) (IF (cc)), Immunofluorescence (Paraffin-embedded Sections) (IF (p)), Immunohistochemistry (Paraffin-embedded Sections) (IHC (p)), Immunohistochemistry (Frozen Sections) (IHC (fro))

### Product Details

Immunogen:	KLH conjugated synthetic phosphopeptide derived from human IKK alpha/beta around the phosphorylation site of Ser176/Ser180
Isotype:	IgG
Specificity:	These phosphorylation sites are homologous across the listed species.
Cross-Reactivity:	Human, Mouse
Predicted Reactivity:	Rat,Dog,Cow,Pig,Horse,Chicken
Purification:	Purified by Protein A.

## Target Details

Target:	IKK-alpha /IKK-beta
Alternative Name:	IKK alpha/beta / ( <a href="#">IKK-alpha /IKK-beta Products</a> )
Background:	<p>Synonyms: IKK1, IKKA, IKBKA, TCF16, NFKB1A, IKK-alpha, Inhibitor of nuclear factor kappa-B kinase subunit alpha, I-kappa-B kinase alpha, IKK-A, IkappaB kinase, Conserved helix-loop-helix ubiquitous kinase, I-kappa-B kinase 1, Nuclear factor NF-kappa-B inhibitor kinase alpha, Transcription factor 16, TCF-16, CHUK</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:	<a href="#">O15111</a>

## Application Details

Application Notes:	WB 1:300-5000
	ELISA 1:500-1000

## Application Details

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

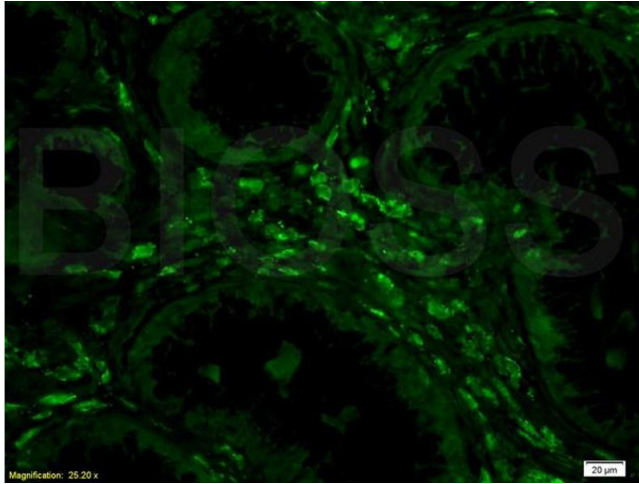
Storage Comment: Shipped at 4°C. Store at -20°C for one year. Avoid repeated freeze/thaw cycles.

Expiry Date: 12 months

## Publications

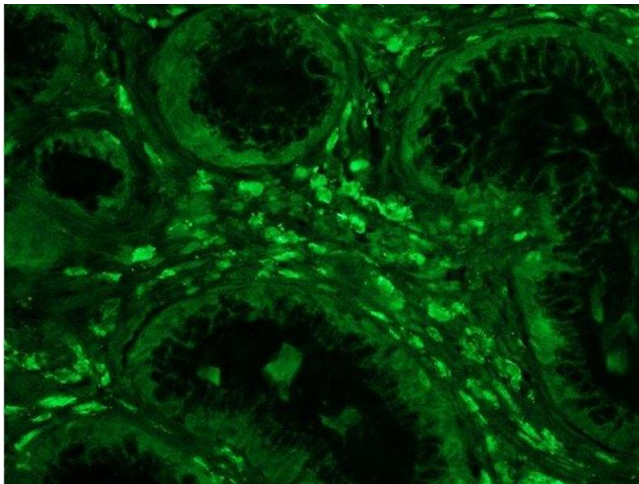
Product cited in: Zhao, Zheng, Hu, Shen, Li: "Betulin attenuates kidney injury in septic rats through inhibiting TLR4/NF-κB signaling pathway." in: **Life sciences**, Vol. 144, pp. 185-93, (2016) ([PubMed](#)).

Gao, Guo, Wang, Lin, Yu, Sheng, Wu, Gong: "Indirubin ameliorates dextran sulfate sodium-induced ulcerative colitis in mice through the inhibition of inflammation and the induction of Foxp3-expressing regulatory T cells." in: **Acta histochemica**, Vol. 118, Issue 6, pp. 606-14, (2016) ([PubMed](#)).



#### Immunofluorescence

**Image 1.** Formalin-fixed and paraffin embedded human colon carcinoma tissue labeled with Anti-Phospho-IKK alpha/beta (Ser176/Ser180) Polyclonal Antibody, Unconjugated (ABIN743318) at 1:200 followed by conjugation to the secondary antibody, Goat Anti-Rabbit IgG, FITC conjugated.



#### Immunofluorescence (Paraffin-embedded Sections)

**Image 2.** Formalin-fixed and paraffin embedded human colon carcinoma tissue labeled with Anti-Phospho-IKK alpha/beta (Ser176/Ser180) Polyclonal Antibody, Unconjugated at 1:200 followed by conjugation to the secondary antibody, Goat Anti-Rabbit IgG, FITC conjugated-FITC).