

Product datasheet

Anti-IKK alpha (phospho S176 + S180) antibody ab17943

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Overview

Product name	Anti-IKK alpha (phospho S176 + S180) antibody
Description	Rabbit polyclonal to IKK alpha (phospho S176 + S180)
Host species	Rabbit
Specificity	Due to sequence homology between the isoforms, this antibody may cross-react with IKKbeta that contains phosphorylated serine 176 and 180. However, we have no direct experimental evidence for this in our records.
Tested applications	Suitable for: ICC/IF, WB
Species reactivity	Reacts with: Human Predicted to work with: Mouse 
Immunogen	Synthetic phosphopeptide derived from the region of human IKKalpha that contains serine 176 and 180.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.
Storage buffer	pH: 7.30 Preservative: 0.05% Sodium azide Constituents: PBS, 0.1% BSA PBS is Ca ²⁺ and Mg ²⁺ free
Purity	Immunogen affinity purified
Clonality	Polyclonal
Isotype	IgG

Applications

Our [Abpromise guarantee](#) covers the use of **ab17943** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
ICC/IF		Use at an assay dependent concentration. PubMed: 21887257
WB	★ ★ ★ ★ ★	Use a concentration of 0.5 - 1.5 µg/ml. Predicted molecular weight: 85 kDa. When looking at the phosphorylation of endogenous proteins, we recommend that IKKalpha first be immunoprecipitated.

Target

Function

Acts as part of the IKK complex in the conventional pathway of NF-kappa-B activation and phosphorylates inhibitors of NF-kappa-B thus leading to the dissociation of the inhibitor/NF-kappa-B complex and ultimately the degradation of the inhibitor. 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. Also phosphorylates NCOA3. Phosphorylates 'Ser-10' of histone H3 at NF-kappa-B-regulated promoters during inflammatory responses triggered by cytokines.

Tissue specificity

Widely expressed.

Involvement in disease

Defects in CHUK are the cause of cocoon syndrome (COCOS) [MIM:613630]; also known as fetal encasement syndrome. COCOS is a lethal syndrome characterized by multiple fetal malformations including defective face and seemingly absent limbs, which are bound to the trunk and encased under the skin.

Sequence similarities

Belongs to the protein kinase superfamily. Ser/Thr protein kinase family. I-kappa-B kinase subfamily.
Contains 1 protein kinase domain.

Post-translational modifications

Phosphorylated by MAP3K14/NIK, AKT and to a lesser extent by MEKK1, and dephosphorylated by PP2A. Autophosphorylated.
Acetylation of Thr-179 by Yersinia yopJ prevents phosphorylation and activation, thus blocking the I-kappa-B signaling pathway.

Cellular localization

Cytoplasm. Nucleus. Shuttles between the cytoplasm and the nucleus.

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