Product datasheet

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

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
Purity  Immunogen affinity purified
Clonality  Polyclonal
Isotype  IgG

Applications

Our Abpromise guarantee covers the use of ab17943 in the following tested applications.
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.

Target

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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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