


Product datasheet

Anti-IKK alpha antibody [ABM10G9] ab227852

KO VALIDATED

[2 References](#) [2 Images](#)

Overview

Product name	Anti-IKK alpha antibody [ABM10G9]
Description	Mouse monoclonal [ABM10G9] to IKK alpha
Host species	Mouse
Tested applications	Suitable for: WB Unsuitable for: Flow Cyt
Species reactivity	Reacts with: Mouse, Human Predicted to work with: Cow 
Positive control	WB: HeLa, MCF7, U-87 MG, PC-3 and HEK-293 cell lysates; mouse small intestine lysate.
General notes	<p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
Storage buffer	Preservative: 0.05% Sodium azide Constituents: PBS, 0.05% BSA
Purity	Protein G purified
Clonality	Monoclonal
Clone number	ABM10G9
Isotype	IgG1
Light chain type	kappa

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab227852 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
WB		Use a concentration of 2 - 4 µg/ml. Predicted molecular weight: 85 kDa.

Application notes Is unsuitable for Flow Cyt.

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.

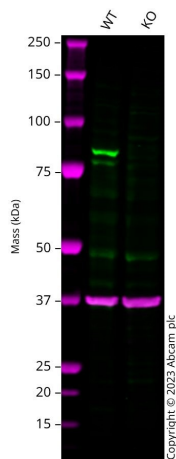
Involvement in disease Defects in CHUK are the cause of cocoon syndrome (COCOS) [MIM:613630]; also known as fetal encasement syndrome. COCOS is a lethal syndrome characterized by multiple fetal malformations including defective face and seemingly absent limbs, which are bound to the trunk and encased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

Images



Western blot - Anti-IKK alpha antibody [ABM10G9] (ab227852)

All lanes : Anti-IKK alpha antibody [ABM10G9] (ab227852) at 2 $\mu\text{g/ml}$

Lane 1 : Wild-type HAP1 cell lysate

Lane 2 : IKKa/b knockout HAP1 cell lysate

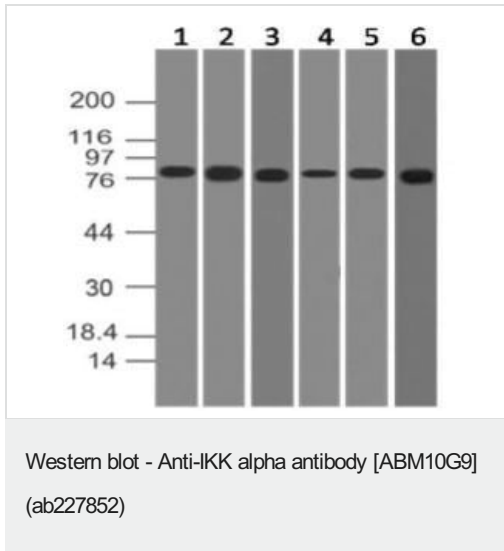
Lysates/proteins at 20 μg per lane.

Performed under reducing conditions.

Predicted band size: 85 kDa

Observed band size: 85 kDa

Western blot: Anti-IKKa/b antibody [ABM10G9] (ab227852) staining at 2 $\mu\text{g/ml}$, shown in green; Rabbit Anti-GAPDH antibody [EPR16891] (**ab181602**) loading control staining at 1/20000 dilution, shown in magenta. In Western blot, ab227852 was shown to bind specifically to IKKa/b. A band was observed at 85 kDa in wild-type HAP1 cell lysates with no signal observed at this size in IKKa/b knockout cell line. To generate this image, wild-type and IKKa/b knockout HAP1 cell lysates were analysed. First, samples were run on an SDS-PAGE gel then transferred onto a nitrocellulose membrane. Membranes were blocked in 3 % milk in TBS-0.1 % Tween[®] 20 (TBS-T) before incubation with primary antibodies overnight at 4 °C. Blots were washed four times in TBS-T, incubated with secondary antibodies for 1 h at room temperature, washed again four times then imaged. Secondary antibodies used were Goat anti-Mouse IgG H&L 800CW and Goat anti-Rabbit IgG H&L 680RD at 1/20000 dilution.



All lanes : Anti-IKK alpha antibody [ABM10G9] (ab227852) at 2 µg/ml

Lane 1 : HeLa (human epithelial cell line from cervix adenocarcinoma) cell lysate

Lane 2 : MCF7 (human breast adenocarcinoma cell line) cell lysate

Lane 3 : U-87 MG (human glioblastoma-astrocytoma epithelial cell line) cell lysate

Lane 4 : Mouse small intestine lysate

Lane 5 : PC-3 (human prostate adenocarcinoma cell line) cell lysate

Lane 6 : HEK-293 (human epithelial cell line from embryonic kidney) cell lysate

Predicted band size: 85 kDa

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