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IKB alpha (IKBA) Antibody Blocking peptide
Synthetic peptide
Catalog # BP2506a

Specification

IKB alpha (IKBA) Antibody Blocking peptide - Product Information

Primary Accession	P25963
Other Accession	NP_065390

IKB alpha (IKBA) Antibody Blocking peptide - Additional Information

Gene ID 4792

Other Names
NF-kappa-B inhibitor alpha, I-kappa-B-alpha, IkB-alpha, IkappaBalpha, Major histocompatibility complex enhancer-binding protein MAD3, NFKBIA, IKBA, MAD3, NFKBI

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP2506a was selected from the region of human IKBa Sumoylation site. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

IKB alpha (IKBA) Antibody Blocking peptide - Protein Information

Name NFKBIA

Synonyms IKBA, MAD3, NFKBI

Function
Inhibits the activity of dimeric NF-kappa-B/REL complexes by trapping REL (RELA/p65 and NFKB1/p50) dimers in the cytoplasm by masking their nuclear localization signals (PubMed:1493333, PubMed:7479976, PubMed:36651806). On cellular stimulation by immune and pro-inflammatory responses, becomes phosphorylated promoting ubiquitination and degradation, enabling the dimeric RELA to translocate to the nucleus and activate transcription (PubMed:<a href="http://www.uniprot.org/citations/7796813"

target="_blank">7796813, PubMed:7628694, PubMed:7878466, PubMed:7479976).

Cellular Location
Cytoplasm. Nucleus. Note=Shuttles between the nucleus and the cytoplasm by a nuclear localization signal (NLS) and a CRM1-dependent nuclear export.

IKB alpha (IKBA) Antibody Blocking peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Blocking Peptides

IKB alpha (IKBA) Antibody Blocking peptide - Images

IKB alpha (IKBA) Antibody Blocking peptide - Background

NFKB1 or NFKB2 is bound to REL, RELA, or RELB to form the NFKB complex. The NFKB complex is inhibited by I-kappa-B proteins (NFKBIA or NFKBIB), which inactivate NF-kappa-B by trapping it in the cytoplasm. Phosphorylation of serine residues on the I-kappa-B proteins by kinases (IKBKA, or IKBKB) marks them for destruction via the ubiquitination pathway, thereby allowing activation of the NF-kappa-B complex. Activated NFKB complex translocates into the nucleus and binds DNA at kappa-B-binding motifs such as 5-prime GGGRNNYYCC 3-prime or 5-prime HGGARNYYCC 3-prime (where H is A, C, or T; R is an A or G purine; and Y is a C or T pyrimidine).

IKB alpha (IKBA) Antibody Blocking peptide - References

Miskolci, V., et al., Arch. Biochem. Biophys. 417(1):44-52 (2003).Kim, Y.S., et al., J. Biol. Chem. 278(31):28462-28469 (2003).Parcellier, A., et al., Mol. Cell. Biol. 23(16):5790-5802 (2003).Takada, Y., et al., J. Biol. Chem. 278(26):24233-24241 (2003).Place, R.F., et al., J. Cell. Physiol. 195(3):470-478 (2003).