10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

NFKBIA Antibody (Y181) Blocking Peptide

Synthetic peptide
Catalog # BP7981a

Specification

NFKBIA Antibody (Y181) Blocking Peptide - Product Information

Primary Accession P25963

NFKBIA Antibody (Y181) 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 AP7981a was selected from the Y181 region of human NFKBIA. 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.

NFKBIA Antibody (Y181) 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:7796813, PubMed:<a href="http://www.uniprot.org/citations/7628694"

target="_blank">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.

NFKBIA Antibody (Y181) Blocking Peptide - Protocols

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

- Blocking Peptides

NFKBIA Antibody (Y181) Blocking Peptide - Images

NFKBIA Antibody (Y181) 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, 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).

NFKBIA Antibody (Y181) Blocking Peptide - References

Szamosi,T., Dig. Dis. Sci. (2008)Fan,C., J. Biol. Chem. 278 (3), 2072-2080 (2003)Tojima,Y., Nature 404 (6779), 778-782 (2000)Gil,J., Oncogene 19 (11), 1369-1378 (2000)Hay,R.T., Philos. Trans. R. Soc. Lond., B, Biol. Sci. 354 (1389), 1601-1609(1999)