

Recombinant Human IKBA Protein

For Research Use Only

1. Basic Product Information

Catalog No.: REP50483

Size: 10ug, 100ug

Protein Name: NF-kappa-B inhibitor alpha (I-kappa-B-alpha) (IkB-alpha) (IkappaBalph)
(Major histocompatibility complex enhancer-binding protein MAD3)

Synonym: NFKBIA, IKBA, MAD3, NFKBI

UniProt ID: P25963

UniProt Link: www.uniprot.org/uniprotkb/P25963/entry

Species Source: Human

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 317 AA

Molecular Weight: 36 KD

Protein Tag: C-terminal His6

2. Amino Acid Sequence

MFQAAERPQEWAMEGPRDGLKKERLLDDRHDSSGLDSMKDEEYEQMVKELQEIRLEPQEVPRGSE
PWKQQLTEDGDSFLHLAIHHEEKALTMENVIRQVKGDLAFLNFQNNLQQTPLHLAVITNQPEIAEALLGA
GCDPELRDFRGNTPLHLACEQGCLASVGVLTQSCTTPHLHSILKATNYNGHTCLHLASIHGYLGIVEL
LVSLGADVNAQEPCNGRTALHLAVDLQNPDLVSLLLKCGADVNRVTYQGYSPLYQLTWGRPSTRIQQ
QLGQLTLENLQMLPESEDEESYDTESEFTEFTEDELPHYDDCVFGGQRLTL

3. Buffer Composition

Liquid format: PBS-based buffer containing 50% glycerol. Glycerol concentration can be customized upon customer request; please state special requirements when placing your order.

Lyophilized format: Buffer before lyophilization is PBS supplemented with 6% trehalose.

4. Storage Conditions

Upon receipt, store the product at -20 °C or -80 °C. Aliquot the product for on-demand use to preserve protein activity and prevent denaturation and inactivation caused by repeated freeze-thaw cycles.

5. Product Description

This product is recombinant NF-kappa-B inhibitor alpha (I-kappa-B-alpha) (IκB-α) (IkappaBalphα) (Major histocompatibility complex enhancer-binding protein MAD3) produced using the HEK293T eukaryotic cell expression system. It is suitable for in-vitro functional assays, protein-protein interaction studies, antibody preparation and other biomedical research applications.

Protein Function: Inhibits the activity of dimeric NF-kappa-B/REL complexes by trapping REL (RELA/p65 and NFκB1/p50) dimers in the cytoplasm by masking their nuclear localization signals (PubMed:1493333, PubMed:36651806, PubMed:7479976). 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:7479976, PubMed:7628694, PubMed:7796813, PubMed:7878466).

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

6. Notes

- Avoid repeated freeze-thaw cycles to maintain protein stability and biological activity.
- Please specify special buffer-composition requirements at the time of order placement.
- For research use only. Not intended for clinical diagnosis, therapeutic use or commercial manufacturing.