

Product Information

I κ B α , GST-tagged, human recombinant, expressed in *E. coli* cells

Catalog Number **SRP5194**
Storage Temperature -70°C

Synonyms: NFKBIA, MAD-3, NFKBI

Product Description

I κ B α is an inhibitor of the NF κ B complex and inactivates NF κ B by trapping it in the cytoplasm.¹ Phosphorylation of serine residues on the I κ B protein by I κ B kinases (IKKs) marks it for destruction via the ubiquitination pathway, thereby, allowing the activation of the NF κ B complex. Synthetic glucocorticoids such as dexamethasone display anti-inflammatory effects by inducing the increased synthesis of the I κ B protein, thereby, inhibiting the activity of the NF κ B complex. Overexpression of the I κ B α gene in fibroblasts leads to inhibition of production of IL-6, TNF receptor, MMP-1, MMP-3, and MMP-13.²

Recombinant, full-length, human I κ B α was expressed in *E. coli* cells using an N-terminal GST tag. The gene accession number is NM_020529. Recombinant protein stored in 50 mM Tris-HCl, pH 7.5, 150 mM NaCl, 10 mM glutathione, 0.1 mM EDTA, 0.25 mM DTT, 0.1 mM PMSF, and 25% glycerol.

Molecular mass: ~61 kDa

Purity: 70–95% (SDS-PAGE, see Figure 1)

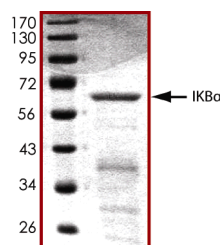
Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability

The product ships on dry ice and storage at -70°C is recommended. After opening, aliquot into smaller quantities and store at -70°C . Avoid repeated handling and multiple freeze/thaw cycles.

Figure 1.
SDS-PAGE Gel of Typical Lot
70–95% (densitometry)



References

1. Auphan, N. et al., Immunosuppression by glucocorticoids: inhibition of NF-kappa-B activity through induction of I-kappa-B synthesis. *Science*, **270**, 286-290, (1995).
2. Bondeson, J. et al., Adenoviral gene transfer of the endogenous inhibitor I κ B α into human osteoarthritis synovial fibroblasts demonstrates that several matrix metalloproteinases and aggrecanases are nuclear factor-kappaB-dependent. *J. Rheumatol.*, **34**, 523-533 (2007).

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