

## IκBα Protein

Recombinant protein expressed in E. coli cells

**Catalog # I20-31G**

Lot # G321-1

### Product Description

Recombinant human IκBα (1-175) was expressed in E. coli cells using an N-terminal GST tag. The gene accession number is [NM\\_020529](#).

### Gene Aliases

NFKBIA, MAD-3, NFKBI

### Formulation

Recombinant protein stored in 50mM Tris-HCl, pH 7.5, 150mM NaCl, 10mM glutathione, 0.1mM EDTA, 0.25mM DTT, 0.1mM PMSF, 25% glycerol.

### Storage and Stability

Store product at -70°C. For optimal storage, aliquot target into smaller quantities after centrifugation and store at recommended temperature. For most favorable performance, avoid repeated handling and multiple freeze/thaw cycles.

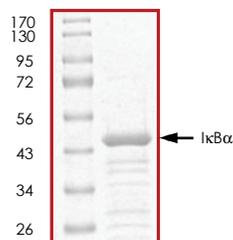
### Scientific Background

IκBα is an inhibitor of the NFκB complex and inactivates the NFκB by trapping it in the cytoplasm (1). Phosphorylation of serine residues on the IκB protein by IκB kinases (IKKs) marks it for destruction via the ubiquitination pathway, thereby allowing the activation of the NFκB complex. Synthetic glucocorticoid such as dexamethasone display anti-inflammatory effects by inducing the increased synthesis of the IκB protein thereby inhibiting the activity of the NFκB complex. Overexpression of the IκBα gene in fibroblasts leads to inhibition of production of IL-6, TNF receptor, MMP-1, MMP-3 and MMP-13 (2).

### 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 IκBα into human osteoarthritis synovial fibroblasts demonstrates that several matrix metalloproteinases and aggrecanases are nuclear factor-kappaB-dependent. *J Rheumatol.* 2007 Mar;34(3):523-33.

### Purity



The purity of IκBα was determined to be **>90%** by densitometry. Approx. MW **46kDa**.

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Catalog Number **I20-31G**  
Specific Lot Number **G321-1**

Purity	>90%
Concentration	0.2 µg/µl
Stability	1 yr At -70°C from date of shipment
Storage & Shipping	Store product at -70°C. For optimal storage, aliquot target into smaller quantities after centrifugation and store at recommended temperature. For most favorable performance, avoid repeated handling and multiple freeze/thaw cycles. Product shipped on dry ice.

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