

BACKGROUND:

Interleukin 1 alpha (IL-1 α) is expressed by epithelial cells, activated macrophages, neutrophils, and endothelial cells to regulate immune responses. IL-1 α signals through the IL-1 receptor, type 1 (IL-1R1) to activate the myeloid differentiation primary response 88 (MYD88) signaling pathway, which contains the cytoplasmic Toll/IL-1 receptor (TIR) domain adapter. IL-1 α and the independently regulated IL-1 β protein have overlapping proinflammatory activities to induce adhesion molecule expression on epithelial cells, control fever induction, initiate rheumatoid arthritis, and promote septic shock.

Recombinant mouse Interleukin 1 alpha is a non-glycosylated protein monomer, containing 157 amino acids and having a molecular mass of 18.1 kDa.

Cat. No.:
 RP2087AF

AA Sequence:

MSAPYTYQSD	LYRKLMLKLV	QKFVMNDSL
QTIYQDVDKH	YLSTTWLNDL	QQEVKFDMYA
YSSGGDDSKY	PVTLKISDSQ	LFVSAQGEDQ
PVLLKELPET	PKLITGSETD	LIFFWKSINS
KNYFTSAAYP	ELFIATKEQS	RVHLARGLPS
MTDFQIS		

TECHNICAL INFO
Source:

E. coli

Physical Appearance:

Sterile Filtered white lyophilized (freeze-dried) powder.

Formulation:

10 mM sodium phosphate, pH 7.5

Stability:

Lyophilized product is very stable at -20°C. Reconstituted material should be aliquoted and frozen at -20°C. It is recommended that a carrier protein (0.1% HSA or BSA) is added for long term storage.

Reconstitution:

Centrifuge vial before opening. When reconstituting the product, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution. It is recommended to reconstitute the lyophilized product with sterile water at 0.1 mg/mL, which can be further diluted into other aqueous solutions.

Protein Content and Purity determined by:

- UV spectroscopy at 280 nm.
- RP-HPLC calibrated against a known standard.
- Quantitation against a known standard via reducing and non-reducing SDS-PAGE gels.

Endotoxin Level:

Endotoxin level, as measured by LAL analysis, is <0.01ng/ug or <0.1EU/ug.

Biological Activity:

The activity is measured by dose-dependent D10.G4.1 proliferation, with Bioactivity Acceptance Criteria ED50 at 10 pg/mL.

Animal Component-Free

This product is produced with no animal derived raw products. All processing and handling employs animal free equipment and animal free protocols.

