

Human IL-1 beta / IL1B (E6K) Protein (pro form, His Tag)

Catalog Number: 10139-H07E



Sino Biological
Biological Solution Specialist

General Information

Gene Name Synonym:

IL-1; IL-1 beta; IL-1B; IL1-BETA; IL1F2

Protein Construction:

A DNA sequence encoding the pro form of human IL1 β (NP_000567.1, with mutation Glu 6 Lys) (Met 1-Ser 269) was fused with a polyhistidine tag at the N-terminus.

Source: Human

Expression Host: E. coli

QC Testing

Purity: $\geq 90\%$ as determined by SDS-PAGE

Bio Activity:

1. Measured by its binding ability in a functional ELISA.
2. Immobilized human IL1B at 10 $\mu\text{g/mL}$ (100 $\mu\text{l/well}$) can bind human IL1R1. The EC_{50} of human IL1R1 is 0.198 $\mu\text{g/mL}$.

Endotoxin:

Please contact us for more information.

Predicted N terminal: Met

Molecular Mass:

The recombinant pro form of human IL1 β consisting of 280 amino acids and has a calculated molecular mass of 32.3 kDa. It migrates as an approximately 34 kDa band in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile PBS, pH 7.4

Normally 5% - 8% trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Stability & Storage:

Samples are stable for twelve months from date of receipt at -20°C to -80°C .

Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Interleukin-1 beta (IL1 beta or IL1B) also known as catabolin, is a member of the interleukin 1 cytokine family. IL1 is a pleiotropic cytokine. It is involved in the inflammatory response, cell growth, and tissue repair in the cortex. The IL1 superfamily consists of three members, IL1A (IL1 alpha), IL1B (IL1 beta), and IL1 receptor antagonist (IL1Ra). In clinical, it has been reported that Interleukin (IL)-1 may influence Th1 / Th2 immune responsiveness and has been implicated in the establishment of successful pregnancy. Proinflammatory interleukin (IL)-1 gene polymorphisms associated with high levels of IL-1beta activity increase the risk for hypochlorhydria and distal gastric carcinoma. IL1B polymorphisms may be involved in susceptibility to SSc. Moreover, the IL2-384-G allele may be a marker for the limited phenotype of systemic sclerosis (SSc).

References

1. Kim SH, et al. (2008) Association of -31TC and -511 CT polymorphisms in the interleukin 1 beta (IL1B) promoter in Korean keratoconus patients. Mol Vis. 14:2109-16.
2. Wang ZC, et al. (2002) T helper 1-type immunity to trophoblast antigens in women with a history of recurrent pregnancy loss is associated with polymorphism of the IL1B promoter region. Genes Immun. 3(1): 38-42.
3. Mattuzzi S, et al. (2007) Association of polymorphisms in the IL1B and IL2 genes with susceptibility and severity of systemic sclerosis. J Rheumatol. 34(5): 997-1004.