

# Interleukin-1 Beta (IL-1 Beta), Human



Cat. No. SR102-0100      Size: 100 µg  
Cat. No. SR102-0020      Size: 20 µg  
Cat. No. SR102-0005      Size: 5 µg

## Description

Interleukin-1 Beta (IL-1 Beta) is produced by activated macrophages, IL-1 Beta stimulates thymocyte proliferation by inducing il-2 release, b-cell maturation and proliferation, and fibroblast growth factor activity. IL-1 Beta proteins are involved in the inflammatory response, being identified as endogenous pyrogens, and are reported to stimulate the release of prostaglandin from synovial cells.

## Expression System

*Escherichia coli*

## Sequence

MASAPVRLNCTLRDSQQKSLVMSGPYELKALHLQGQDMEQQVVFMSFVQG  
EESNDKIPVALGLKEKNLYLSCVLKDDKPTLQLESVDPKNYPKKMEKRFVFNKI  
EINNKLFEFESAQFPNWWYISTSQAENMPVFLGGTKGGQDITDFTMQFVSS  
with polyhistidine tag at the C-terminus.

**Species**      Human

**Tag**              polyhistidine tag at the C-terminus

## Endotoxin Level

<0.1 EU per 1 µg of the protein by the LAL method.

## Activity

Measure by its ability to induce proliferation in D10.G4.1 cells.

The ED<sub>50</sub> for this effect is <10 pg/mL.

The specific activity of recombinant human IL-1 beta is approximately >1.5 x 10<sup>8</sup> IU/mg.

Measure by its ability to induce IL-8 secretion in HT29 cells.

The ED<sub>50</sub> for this effect is 1.8-5.1 ng/mL.

**Purity**              >98% as determined by SDS-PAGE. Ni-NTA chromatography

## Formulation

The protein was lyophilized from a solution containing 1X PBS, pH 8.0.

## Reconstitution

Unopened ampoules can be stored at -20°C or -80°C.

Need not spin the ampoule. Open the cap carefully, then dissolve the lyophilized protein with sterile water for a 100 µg/mL concentration or according to the product's Certificate of Analysis (CoA). Rinse the inner side of the ampoule gently and stand for at least 20 minutes at room temperature. (Important Note: Do Not Vortex!) Use the reconstituted solution immediately or store it by distributing it to aliquots and store at -20 °C. (Avoid repeated freeze-thaw cycles) We recommend diluting the solution to working concentration by using buffers or medium containing a carrier\*. (Do not dilute the working solution with water, which may cause protein degradation.) \*Carriers: 0.1% BSA or 5% HSA or 10% FBS.

## Storage

Lyophilized protein should be stored at -20°C.

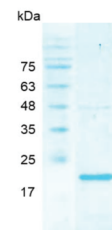
This product is stable for one year upon receipt, when handled and stored as instructed.

Upon reconstitution, protein aliquots should be stored at -20°C or -80°C.

Avoid repeated freeze/thaw cycles.

## Note

Please use within one month after protein reconstitution.



SDS-PAGE analysis of recombinant human IL-1 Beta

## Related Ordering Information

Cat. No.	Description	Size
CC103-0500	DMEM, High Glucose	500 ml
CC109-0500	RPMI 1640	500 ml
CC113-0500	DMEM/F-12	500 ml
PC203-0600	60mm Tissue Culture Dish, with Gripping Ring	600 ea
PC273-0100	75T Flask, Plug Seal Cap	100 ea

## Caution

- During operation, always wear a lab coat, disposable gloves, and protective equipment.
- Research Use Only. Not intended for any animal or human therapeutic or diagnostic uses.