CELL APPLICATIONS, INC.

RECOMBINANT PROTEINS

Rat Interleukin-1 beta

SIZE	CAT. NO.
10 ug	RP3030-10
100 ug	RP3030-100
1000 ug	RP3030-1000

BACKGROUND

Interleukin-1beta (IL-1β) is a proinflammatory cytokine, produced in response to inflammatory agents by a variety of cells, including, monocytes, macrophages, and dendritic cells (DCs). IL-1β and IL-1α are two distinct and independently regulated gene products that comprise IL-1 and signal through the Type 1 IL-1 receptor (IL-1R1). Although IL-1α is cell associated and IL-1β is secreted, they have nearly identical biological activity in that they induce adhesion molecule expression on epithelial cells, control fever induction, and play a role in arthritis and septic shock. Signaling activated by the IL-1R1 promotes these activities through a MYD88 signaling pathway similar to those associated with Toll receptors.

Recombinant rat IL-1β is a non-glycosylated protein, containing 152 amino acids and having a molecular mass of 17.3 kDa.

Alternative Names:
Catabolin, LAF, EP, LEM, MCF

Amino Acid Sequence:

TECHNICAL INFORMATION

Source: *E.coli*

Physical Appearance:
Sterile Filtered white lyophilized (freeze-dried) powder.

Formulation:
Recombinant rat IL-1β is lyophilized from 10 mM Na2PO4, 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 a concentration of 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 determined by the dose-dependent proliferation of mouse D10S cells and is typically less than 1 ng/ml.