

**RECOMBINANT MOUSE INTERLEUKIN-1b (mIL-1b)**

**Catalog # 02701**

**5 mg per vial**

**Catalog # 02901**

**25 mg per vial**

**PRODUCT DESCRIPTION:**

IL-1 is a name that designates two proteins, IL-1 $\alpha$  and IL-1 $\beta$ , that are the products of distinct genes, but recognize the same cell surface receptors. Both proteins are produced by a wide variety of cells in response to stimuli such as those produced by inflammatory agents, infections, or microbial endotoxins. The proteins are synthesized as 31 kDa precursors that are subsequently cleaved into proteins with molecular weights of approximately 17.5 kDa. Mature human and mouse IL-1 $\beta$  share approximately 75% amino acid sequence identity and human IL-1 $\beta$  has been found to be active on mouse cell lines. IL-1 $\alpha$  and IL-1 $\beta$  are potent pro-inflammatory cytokines that induce a wide variety of biological activities on different cell types. The 153 amino acid residue methionyl form of the recombinant protein has a predicted molecular mass of approximately 17 kDa.

**SOURCE:**

A DNA sequence encoding the mature mouse IL-1 $\beta$  protein was expressed in *E. coli*.

**PURITY:**

Greater than 97%, as determined by SDS-PAGE and visualized by silver stain. Endotoxin level less than 0.1 ng per 1  $\mu$ g of the cytokine as determined by the LAL method.

**FORMULATION:**

Lyophilized from a 0.2  $\mu$ m filtered solution in PBS (pH 7.4) containing 50 mg of bovine serum albumin per 1 mg of cytokine.

**RECONSTITUTION:**

It is recommended that sterile phosphate-buffered saline containing at least 0.1% human serum albumin or bovine serum albumin be added to the vial to prepare a stock solution of no less than 5  $\mu$ g/mL of the cytokine.

**STABILITY/STORAGE:**

Lyophilized samples are stable for greater than six months at -20°C to -70°C.

Reconstituted mIL-1 $\beta$  can be stored under sterile conditions at 2°C to 4°C for one month or at -20°C to -70°C for three months without detectable loss of activity.

**Avoid repeated freeze-thaw cycles.**

**ACTIVITY:**

Activity was determined in a cell proliferation assay using a mouse helper cell line, D10.G4. and the ED<sub>50</sub> for this effect was typically 5 - 10 pg/mL.

**THIS REAGENT IS FOR RESEARCH USE ONLY.  
IT IS NOT TO BE ADMINISTERED TO HUMANS.**