

Product Information

Interleukin-1 β **mouse, recombinant** **expressed in *E. coli***

Catalog Number **I5271**Storage Temperature -20°C

Synonyms: IL-1 β , Endogenous Pyrogen (EP), Mitogenic Protein (MP), Helper Peak-1 (HP-1), T Cell Replacing Factor III (TRF III or TRF_H), B cell Activating Factor (BAF), B Cell Differentiation Factor (BDF)¹

Product Description

Interleukin-1 (IL-1), originally known as Lymphocyte Activating Factor (LAF), activates T cells and lymphocytes, which then proliferate and secrete interleukin-2.² IL-1 is primarily released from stimulated macrophages and monocytes, but is also released from several other cell types,³ and is thought to play a key role in inflammatory and immune responses.^{1,4}

The two closely related agents, Interleukin-1 α (IL-1 α) and Interleukin-1 β (IL-1 β) bind to the same cell surface receptor, elicit nearly identical biological responses, and also share 25% homology in their amino acid sequence. Recombinant mouse IL-1 β is a 17.5 kDa protein containing 153 amino acid residues.

This product is lyophilized from 0.2 μm filtered solution in 10 mM sodium citrate, pH 4.0.

The biological activity of recombinant mouse IL-1 β is measured by the dose-dependent stimulation of murine D10S cells. The ED₅₀ is defined as the effective concentration of growth factor that elicits a 50% increase in cell growth in a cell based bioassay.

Purity: $\geq 98\%$ (SDS-PAGE)Endotoxin: ≤ 0.1 ng/ μg

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Preparation Instructions

Reconstitute the contents of the vial using water to a concentration of 0.1–1.0 mg/ml. This solution can then be diluted into other aqueous buffers and stored at $2-8^{\circ}\text{C}$ for up to 1 week or at -20°C for extended use.

Storage/Stability

Prior to reconstitution, the lyophilized protein is best stored at -20°C . It is stable for up to a few weeks at room temperature. After reconstitution and for extended storage, freeze in working aliquots at -20°C . Repeated freezing and thawing is not recommended.

References

1. Symons, J., et al., Lymphokines and Interferons, A Practical Approach, Clemens, M., et al., (eds.), IRL Press, Oxford (1987).
2. Gery, I., et al., J. Exp. Med., **136**, 128 (1972).
3. Oppenheim, J., et al., Immunol. Today, **7**, 45 (1986).
4. Durum, S., et al., Ann. Rev. Immunol., **3**, 263 (1985).

KAA,MAM 01/10-1

Sigma brand products are sold through Sigma-Aldrich, Inc.

Sigma-Aldrich, Inc. warrants that its products conform to the information contained in this and other Sigma-Aldrich publications. Purchaser must determine the suitability of the product(s) for their particular use. Additional terms and conditions may apply. Please see reverse side of the invoice or packing slip.