



Product Information

INTERLEUKIN-1 α (IL-1 α) RECOMBINANT, MOUSE Expressed in *E. coli*

Product No. **I 5396**

Product Description

Interleukin-1 (IL-1), originally known as lymphocyte activating factor (LAF), activates T cells and lymphocytes, which then proliferate and secrete interleukin-2.¹ IL-1 is primarily released from stimulated macrophages and monocytes, but also is released from several other cell types,² and is thought to play a key role in inflammatory and immune responses.³ Other synonyms for IL-1 include: 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) and B cell differentiation factor (BDF).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 share 25% homology in their amino acid sequence.

Performance Characteristics

The biological activity of recombinant, mouse IL-1 α was measured in a cell proliferation assay using the mouse helper T cell line, D10.G4.1.⁵ The EC₅₀ is defined as the effective concentration of growth factor that elicits a 50% increase in cell growth in a cell based bioassay.

Product Information

Expressed in *E. coli*

Molecular Weight: 18 kDa

EC₅₀: 1 - 10 pg/ml

Package Size: 5 μ g/vial

Formulation: Lyophilized from a 0.2 μ m-filtered solution of phosphate buffered saline, pH 7.4.

Carrier Protein: 250 μ g of bovine serum albumin

Sterility: 0.2 μ m filtered, aseptic fill

Reconstitution and Use

Reconstitute the contents of the vial using 0.2 μ m-filtered PBS containing 0.1% HSA or BSA to a concentration not less than 1 μ g/ml.

Storage/Stability

Prior to reconstitution, store at -20 °C for no more than 6 months. After reconstitution, store at 2-8 °C for a maximum of one month. For extended storage, freeze in working aliquots at -70 °C or -20 °C. Repeated freezing and thawing is not recommended.

References

1. Gery, I., et al., J. Exp. Med., **136**, 128 (1972).
2. Oppenheim, J., et al., Immunol. Today, **7**, 45 (1986).
3. Durum, S., et al., Ann. Rev. Immunol., **3**, 263 (1985).
4. Aarden, L., et al., J. Immunol., **123**, 2928 (1979).
5. Symons, J., et al., Lymphokines and Interferons, A Practical Approach, Clemens, M., et al., (eds.), IRL Press, Oxford (1987).

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