

**Mouse Cytolytic IL-2/Fc Fusion Protein****CATALOG#:** MF-11002**QUANTITY:** 10 µg**MOLECULAR STRUCTURE:****TRANSFECTANT CELL LINE:****STORAGE CONDITIONS:****PRODUCT STABILITY:****Ship Date:****ACTIVITY RANGE:****LOT#:****CONCENTRATION:** 0.1 mg/ml

A soluble 94 kd dimeric fusion protein consisting of mouse IL-2 fused to mouse Fcγ2a Fc.

CHO cells

Store stock solution at <-20<sup>0</sup>C. Store working solution at 4 <sup>0</sup>C. Freeze/Thawing is not recommended.Product should retain for at least one year after shipping date when stored at <-20<sup>0</sup>C and the working solution should retain for at least one week at 4 <sup>0</sup>C.

7/3/2000

Measured using CTLL-s indicator cells.

Specific Activity: 1-1.5 x10<sup>6</sup> Units/mg\*.**FORMULATION:** IL-2/Fc is supplied as a frozen liquid comprised of 0.22 µm sterile-filtered PBS (PH 7.4, 50 mM Sodium Phosphate, 100 mM Potassium Chloride, 150 mM NaCl) and containing no preservatives.**PRODUCTION:** Mouse IL-2/Fc fusion protein was purified from tissue culture supernatant of CHO transfectants. Purity was >98% by SDS-PAGE. The endotoxin level is ≤0.06 EU per µg of IL-2/Fc.**INFORMATION:** Interleukin-2 (IL-2) is a 133 amino acid glycoprotein with one intramolecular disulfide bond and variable glycosylation (1). It is secreted by activated T cells and induces proliferation and maturation of activated T cells, natural killer cells, and lymphokine activated killer cells. IL-2 also stimulates proliferation of antibody-producing B cells, activates neutrophils, and induces mononuclear cells to secrete gamma interferon and tumor necrosis factors alpha and beta (1-4). Moreover, recent studies have shown that IL-2 is required for activation-induced apoptosis, an important homeostatic mechanism in the immune system, which involve in the maintenance of peripheral tolerance to self-antigens (5, 6). A mouse IL-2/Fc fusion protein is made by genetically fusing IL-2 to Fcγ2a. This fusion protein possesses both the biological functions of the IL-2 moiety and a prolonged circulating half-life determined by the Fc domain. Since the Fcγ2a murine isotype is able to bind effectively to cells expressing the high affinity FcγR I receptor and possesses a complement (C1q) binding domain, thus is able to facilitate antibody-dependent cell-mediated cytotoxicity (ADCC) and complement-dependent cytotoxicity (CDC). The cytolytic IL-2/Fc fusion protein is potentially able to target the cells bound by IL-2 moieties (7).

\* Unit defined using rIL-2 as the reference in a CTLL2 cell proliferation assay.

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7. Zheng, X. X., A. W. Steele, W. W. Hancock, K. Kawamoto, X. C. Li, P. W. Nickerson, Y. Li, Y. Tian, and T. B. Strom. 1999. IL-2 receptor-targeted cytolytic IL-2/Fc fusion protein treatment blocks diabetogenic autoimmunity in nonobese diabetic mice. *J Immunol* 163:4041.

**This Product is intended for Laboratory Research use only.****Chimerigen Laboratories**[www.chimerigen.com](http://www.chimerigen.com)

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