

Mouse Nonlytic IL-10/Fc Fusion Protein

CATALOG#: MF12010

QUANTITY: 10 µg

MOLECULAR STRUCTURE:

TRANSFECTANT CELL LINE:

STORAGE CONDITIONS:

PRODUCT STABILITY:

Ship Date:

ACTIVITY RANGE:

LOT#:

CONCENTRATION: 0.1 mg/ml

A soluble 98 kd dimeric fusion protein consisting of mouse IL-10 fused to mutant mouse Fcγ2a Fc.

CHO cells

Store stock solution at <-20⁰C. Store working solution at 4⁰C. Freeze/Thawing is not recommended.

Product should retain for at least one year after shipping date when stored at <-20⁰C and the working solution should retain for at least one week at 4⁰C.

7/3/2000

6,000 nits/µg as determined by ELISA. Bioactivity demonstrated in cytokine synthesis inhibition assay, measuring inhibition of IL-6 production by PU5-1 cells.

FORMULATION: IL-10/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: Nonlytic mouse IL-10/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-10/Fc.

INFORMATION: Interleukin-10 (IL-10) is a cytokine produced by activated Th2 cells, B cells, keratinocytes and monocytes/macrophages (1). In vitro murine and human IL-10 inhibits cytokine synthesis by Th1 cells, natural killer cells, and monocytes/macrophages (1). Several studies have suggested the potential application of IL-10 as an anti-inflammatory agent in the treatment of septic shock (2) and as an immunosuppressive agent in certain T-cell mediated autoimmune diseases (3, 4). A mouse IL-10/Fc fusion protein is made by genetically fusing IL-10 to Fcγ2a. This fusion protein possesses both the biological functions of the IL-10 moiety and a prolonged circulating half-life determined by the Fc domain. Mutations to the complement (C1q) and FcγR I binding sites of the Fcγ2a fragment render IL-10/Fc incapable to direct antibody directed cytotoxicity (ADCC) and compliment directed cytotoxicity (CDC) (5).

1. **Moore, K. W., A. O'Garra, R. de Waal Malefyt, P. Vieira, and T. R. Mosmann.** 1993. Interleukin 10. *Annu Rev Immunol* 11:165.
2. **Gerard, C., C. Bruyns, A. Marchant, D. Abramowicz, P. Vandenabeele, A. Delvaux, W. Fiers, M. Goldman, and T. Velu.** 1993. Interleukin 10 reduces the release of tumor necrosis factor and prevents lethality in experimental endotoxemia. *J Exp Med* 177:547.
3. **Fiorentino, D. F., A. Zlotnik, T. R. Mosmann, M. Howard, K. W. Moore, and A. O'Garra.** 1991. IL-10 inhibits cytokine production by activated macrophages. *J Immunol* 147:3815.
4. **Moore, K. W., P. Vieira, D. F. Fiorentino, M. L. Trounstein, T. A. Khan, and T. R. Mosmann.** 1990. Homology of cytokine synthesis inhibitory factor (IL-10) to the Epstein-Barr virus gene BCRFI. *Science* 248:1230.
5. **Zheng, X. X., A. W. Steele, P. Nickerson, W. Steurer, J. Stefczer, and T. B. Strom.** 1995. Administration of Non-Cytolytic IL-10/Fc in LPS-induced septic shock and allogeneic islet transplantation murine animal models. *J. Immunol.* 154:5590.

This Product is intended for Laboratory Research use only.

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