Chimerigen **Technical Data Sheet**

Human Nonlytic IL-10/Fc Fusion Protein

CATALOG#: HF-22110	**LOT#:**
QUANTITY: 10 μg	**CONCENTRATION: 0.1 mg/ml**
MOLECULAR STRUCTURE*:*	A soluble 98 kd dimeric fusion protein consisting of human IL-10 fused to mutant human IgG1 Fc.
TRANSFECTANT CELL LINE*:*	NS.1 cells
STORAGE CONDITIONS:	Store stock solution at <-20^{0}C. Store working solution at 4 ^{0}C. Freeze/Thawing is not recommended.
PRODUCT STABILITY:	Product should retain for at least one year after shipping date when stored at <-20^{0}C and the working solution should retain for at least one week at 4 ^{0}C.
SHIP DATE:	
ACTIVITY RANGE:	6,000 units/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 human IL-10/Fc fusion protein was purified from tissue culture supernatant of NS.1 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 human IL-10/Fc fusion protein is made by genetically fusing IL-10 to IgG1 Fc. 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 Fcγ I fragment render IL-10/Fc incapable to direct antibody directed cytotoxicity (ADCC) and complement 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. Trounstine, 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. SteFcer, 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.

Chimerigen Laboratories
www.chimerigen.com

214 Lincoln Street, Suite 315
Allston, MA 02135
Tel: 617-779-8868
Fax: 617-779-0880