

## Product Information

### IL-10/Fc CHIMERA (NON-LYTIC)

Mouse, Recombinant  
Expressed in CHO cells

Product Number **I 9529**  
Storage Temperature  $-20\text{ }^{\circ}\text{C}$

#### Product Description

IL-10 (Interleukin-10)/Fc Chimera is a soluble 98 kDa dimeric fusion protein consisting of mouse IL-10 fused to mutant mouse Fc $\gamma$ 2a Fc. It is purified from tissue culture supernatants of CHO cell transfectants. This fusion protein possesses both the biological functions of IL-10 as an immune anti-inflammatory agent and the prolonged circulating half-life determined by the Fc domain. Mutations to the complement (C1q) and Fc $\gamma$ RI binding sites of the Fc $\gamma$ 2a fragment render IL-10/Fc incapable to facilitate antibody directed cytotoxicity (ADCC) and complement mediated cytotoxicity (CDC).<sup>1</sup>

Mouse Interleukin-10 (IL-10) is a 157 amino acid polypeptide cytokine with species-specific activity.<sup>2</sup> Murine IL-10 is produced by Th0 and Th2 T cells, B cells and B cell lymphomas, keratinocytes, mast cell lines and macrophages.<sup>3,4</sup> *In vitro*, murine IL-10 inhibits cytokine synthesis by Th1 cells, natural killer cells, and monocytes/macrophages.<sup>3</sup> IL-10 stimulates the growth of stem cells, mast cells and thymocytes,<sup>4</sup> and enhances cytotoxic T cell development<sup>5</sup> and co-stimulates B cell differentiation and immunoglobulin secretion.<sup>6</sup> In addition, IL-10 inhibits class II MHC expression on macrophages.<sup>7</sup> Several studies have suggested the potential application of IL-10 as an anti-inflammatory agent for the treatment of septic shock<sup>8</sup> and as an immunosuppressive agent in certain T cell mediated autoimmune diseases.<sup>9,10</sup> IL-10/Fc Chimera has been successfully used in basic and applied research on mouse models.<sup>1,11-13</sup>

#### Reagent

IL-10/Fc Chimera is supplied as 10  $\mu\text{g}$  of protein in 0.22  $\mu\text{m}$  sterile-filtered PBS, pH 7.4 (50 mM sodium phosphate, 100 mM potassium chloride, 150 mM sodium chloride) and contains no preservatives.

#### Preparation Instructions

The chimera can be further diluted to the desired working concentration in sterile PBS or culture medium.

#### Storage/Stability

Store at  $-20\text{ }^{\circ}\text{C}$ . Store working solutions at  $4\text{ }^{\circ}\text{C}$  for up to one week. Repeated freeze/thaw cycles are not recommended.

#### Product Profile

The biological activity is determined using a cytokine synthesis inhibition assay, measuring inhibition of IL-6 production by PU5-I cells. Activity is approximately 6,000 units/ $\mu\text{g}$ .

Purity: >98% by SDS-PAGE

#### References

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