

## Product Information

### IL-2/Fc CHIMERA (NON-LYTIC)

Human, Recombinant  
Expressed in NS.1 cells

Product Number **I 9780**  
Storage Temperature  $-20^{\circ}\text{C}$

#### Product Description

IL-2 (Interleukin-2)/Fc Chimera is a soluble 94 kDa dimeric fusion protein consisting of human IL-2 fused to human IgG2 Fc. It is purified from tissue culture supernatants of NS.1 cell transfectants. This fusion protein possesses both the biological functions of IL-2 as an immune anti-inflammatory agent and the prolonged circulating half-life determined by the Fc domain.<sup>1,2</sup> IgG2 does not bind complement C1q as well as IgG1 or IgG3 and, therefore, IL-2/Fc Chimera is unable to facilitate antibody directed cytotoxicity (ADCC) and complement mediated cytotoxicity (CDC).

Interleukin-2 (IL-2), also known as T cell growth factor, is a 133 amino acid glycoprotein that is secreted by activated T lymphocytes and induces proliferation and maturation of activated T cells, natural killer cells, lymphokine activated killer cells, monocytes, macrophages, and oligodendrocytes.<sup>3</sup> IL-2 stimulates the proliferation of antibody-producing B cells, activates neutrophils, modulates the expression of the IL-2 receptor, and induces mononuclear cells to secrete  $\gamma$ -interferon and TNF- $\alpha$  and  $-\beta$ .<sup>3-6</sup> In addition, recent studies have shown that IL-2 is required for activation-induced apoptosis, an important homeostasis mechanism for the maintenance of peripheral tolerance to self antigens.<sup>7,8</sup>

#### Reagent

The IL-2/Fc Chimera is supplied as 10  $\mu\text{g}$  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

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

#### Storage/Stability

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

#### Product Profile

The biological activity of recombinant IL-2/Fc is determined in a proliferation assay using CTLL-2 indicator cells.<sup>9</sup>

Specific Activity: 1 to  $1.5 \times 10^6$  Units/mg

A Unit is defined using rhIL-2 as the reference in the CTLL-2 cell proliferation assay.

Purity: >98% by SDS-PAGE

#### References

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7. Lenardo, K. M. Nature **353**, 858 (1991).
8. Kneitz, B., et al. Eur. J. Immunol. **25**
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