

Product No. I-3519
Interleukin-10 (IL-10)
Human, Recombinant

Expressed in *Sf*21 Insect Cells

Description

Human IL-10 is a non-glycosylated polypeptide consisting of 160 amino acids.¹ There is 73% homology between the human and mouse IL-10 proteins, however, the human IL-10 acts on both human and mouse target cells, while the mouse IL-10 has species specific activity.¹ The cellular sources of IL-10 are CD4⁺ T cells and T cell clones, thymocytes, B cells and B cell lymphomas, macrophages, mast cell lines and keratinocytes². IL-10 will stimulate the growth of stem cells, mast cells and thymocytes.² IL-10 enhances cytotoxic T cell development,³ and co-stimulates B cell differentiation and immunoglobulin secretion.⁴ IL-10 inhibits cytokine production by macrophages² and suppresses macrophage class II MHC expression.⁵ The human IL-10 gene is on human chromosome 1.⁶ The molecular weight of human IL-10 is 18 kD.²

Performance Characteristics

The biological activity of human recombinant IL-10 is determined in a cell proliferation assay using MC/9 cells, a mouse mast cell line.⁷ The EC₅₀ is defined as the effective concentration of growth factor that elicits a 50% increase in cell growth in a cell based bioassay.

Product Information

Expressed in *Sf*21 insect cells

Molecular Weight: 18 kD

Purity: ≥ 97% as determined by SDS-PAGE

EC₅₀: 0.5 - 1.5 ng/ml

Package size: 5 µg

Lyophilization: Lyophilized from a 0.2 µm-filtered solution of phosphate buffered saline (PBS), pH 7.4.

Carrier Protein: 250 µg human serum albumin (HSA).

Sterility: 0.2 µm-filtered, aseptic fill

Endotoxin: ≤ 0.1 ng/µg IL-10

Reconstitution

Reconstitute the contents of the vial using 0.2 µm-filtered PBS containing 0.1% HSA or BSA to a concentration not less than 1 µg/ml.

Storage

Prior to reconstitution, store at -20°C. After reconstitution, store at 2-8°C for a maximum of 3 months. For extended storage, freeze in working aliquots at -70°C or -20°C. Repeated freezing and thawing is not recommended.

References

1. Vieira, P., et al., Proc. Natl. Acad. Sci. USA, **88**, 1172 (1991).
2. Rennick, D., et al., Progress in Growth Factor Research, **4**, 207 (1992).
3. Chen, W., et al., J. Immunol., **147**, 528 (1991).
4. Rousset, F., et al., Proc. Natl. Acad. Sci. USA, **89**, 1890 (1992).
5. de Waal-Malefyt, R., et al., J. Exp. Med., **174**, 915 (1991).
6. Kim, J., et al., J. Immunol., **148**, 3618 (1992).
7. Thompson-Snipes, L., et al., J. Exp. Med., **173**, 507 (1991).

BIOHAZARD: Handle as if capable of transmitting infectious agents. Refer to MSDS.

Source material tested and found negative for antibody to HIV and HBsAG.