

RECOMBINANT HUMAN IL-10

Catalog # 02510

5 mg per vial

Catalog # 02810

25 mg per vial

PRODUCT DESCRIPTION:

Human Interleukin 10 (IL-10) is a species cross-reactive cytokine produced by CD4⁺ as well as by some CD8⁺ T cells. In addition, human B cells, EBV-transformed lymphoblastoid cell lines and monocytes can produce IL-10 upon activation. IL-10 is a pleiotropic cytokine that can exert either immunostimulatory or immunosuppressive effects. As an immunostimulatory cytokine, IL-10 can act on B cells to enhance their viability, cell proliferation, Ig secretion and class II MHC expression. IL-10 is also a growth co-stimulator for thymocytes and mast cells, as well as an enhancer of cytotoxic T cell development. As an immunosuppressant, IL-10 can inhibit the accessory function and antigen-presenting capacity of monocytes by downregulating class II MHC expression. It inhibits IFN- γ synthesis and Th1 differentiation in the mouse system. It can suppress the production of numerous cytokines including TNF- α , IL-1 and IL-6, as well as the synthesis of superoxide anion, reactive oxygen intermediates (ROI), and reactive nitrogen intermediates (RNI) by activated monocytes/macrophages. Recombinant human IL-10 containing 160 amino acid residues has a predicted molecular mass of approximately 18.6 kDa.

SOURCE:

A DNA sequence encoding the mature human IL-10 protein was expressed in Sf21 insect cells.

PURITY:

Greater than 97% as determined by SDS-PAGE and visualized by silver stain. Endotoxin level is less than 0.1 ng per μ g of the cytokine, as determined by the LAL method.

FORMULATION:

Lyophilized from a sterile-filtered solution in PBS containing 50 μ g of bovine serum albumin per 1 μ g of cytokine.

RECONSTITUTION:

It is recommended that sterile phosphate-buffered saline containing at least 0.1% human serum albumin or bovine serum albumin be added to the vial to prepare a stock solution of no less than 1 μ g/ml of the cytokine.

STABILITY/STORAGE:

The lyophilized sample is stable for greater than six months at -20°C to -70°C. Reconstituted IL-10 can be stored under sterile conditions at 2°C to 4°C for one month or at -20°C to -70°C for three months without detectable loss of activity.

Avoid repeated freezing and thawing.

ACTIVITY:

Activity was determined in a cell proliferation assay using the murine mast cell line, MC/9 and the ED50 using this assay was typically 0.5 – 1.0 ng/ml.

**THIS REAGENT IS FOR RESEARCH USE ONLY.
IT IS NOT TO BE ADMINISTERED TO HUMANS.**