

RECOMBINANT HUMAN IL-12

Catalog # 02512

5 mg per vial

Catalog # 02612

25 mg per vial

PRODUCT DESCRIPTION:

Human Interleukin 12 (IL-12) is a species specific cytokine produced by macrophages and B lymphocytes. IL-12 induces the production of IFN- γ and TNF by resting and activated T and NK cells, synergizes with other IFN- γ inducers at both the transcriptional and post-translational levels to induce IFN- γ gene expression, enhances the cytotoxic activity of resting NK and T cells, induces and synergizes with IL-2 in the generation of lymphokine-activated killer (LAK) cells, and promotes proliferation of resting T cells and activated NK and T cells. IL-12 is a central mediator of cell-mediated immunity by its effect on development, proliferation and activation of Th1 cells. IL-12 is a glycosylated disulfide-linked heterodimeric protein, consisting of a 306 amino acid residue p40 subunit and a 197 amino acid residue p35 subunit; it has a molecular mass of approximately 75 kDa.

SOURCE:

DNA sequences encoding the p35 and p40 subunits of the human IL-12 protein were co-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 μg of the cytokine, as determined by the LAL method.

FORMULATION:

Lyophilized from a sterile-filtered solution in PBS containing 50 μg of bovine serum albumin per 1 μg 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 $\mu\text{g}/\text{mL}$ of the cytokine.

STABILITY/STORAGE:

The lyophilized sample is stable for greater than six months at -20°C to -70°C . Reconstituted IL-12 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 PHA-activated human T lymphoblasts and the ED50 using this assay was typically 0.05 – 0.2 ng/mL.

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