

PRODUCT DESCRIPTION:

Mouse Interleukin 4 (IL-4) is produced by activated Th2 cells, mast cells and basophils. IL-4 is a pleiotropic immune regulatory cytokine that promotes growth of human B cells; induces expression of germ line C ϵ transcripts, directs naïve B cells to switch to the synthesis of IgE and IgG4, and induces expression of CD23 and ClassII-MHC. In monocytes, IL-4 down-regulates Fc γ R expression; inhibits synthesis of proinflammatory cytokines, including TNF- α , IL-1 β , IL-6 and IL-8; induces monocyte/macrophage fusion and mannose receptor expression. IL-4 inhibits the synthesis of IL-12, nitric oxide synthase and cyclooxygenase-2. The mouse IL-4 cDNA encodes a 119 amino acid residue protein that has a molecular mass of 14 kDa. Mouse IL-4 is species specific. IL-4 binds to a heterodimeric receptor formed by the binding subunit IL-4R α and the γ chain of IL-2R.

SOURCE:

A DNA sequence encoding the mature mouse IL-4 protein minus the first two amino acid residues was expressed *E. coli*.

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 AND STORAGE:

The lyophilized sample is stable for greater than six months at -20°C to -70°C.

Reconstituted mouse IL-4 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 a mouse factor-dependent cell line HT-2 and the ED₅₀ using this assay was typically 1 – 2 ng/mL.

See Material Safety Data Sheet for more information.

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

Product Information Sheet

CYTOKINES



**RECOMBINANT
MOUSE
IL-4**

Catalog #02714 10 μ g/vial
Catalog #02914 50 μ g/vial

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