

Recombinant Murine IL-4

CATALOG #:

4138-10	10 µg
4138-50	50 µg
4138-1000	1 mg

SOURCE: *E. coli*

PURITY: >98% by SDS-PAGE and HPLC analyses
Endotoxin level is <0.1 ng per µg of IL-4.

MOL. WEIGHT: 13.5 kDa

FORMULATION: Lyophilized with no additives

RECONSTITUTION:

Centrifuge the vial prior to opening. Reconstitute in water to a concentration of 0.1-1.0 mg/ml. The solution can then be diluted into other aqueous buffers and stored at 4° C for 1 week or – 20° C for future use.

STORAGE CONDITIONS:

The lyophilized murine IL-4 is best-stored desiccated below 0° C. Reconstituted IL-4 should be stored at working aliquots at -20° C.

DESCRIPTION:

IL-4 is a pleiotropic cytokine that regulates diverse T and B cell responses including cell proliferation, survival and gene expression. Produced by mast cells, T cells and bone marrow stromal cells, IL-4 regulates the differentiation of naive CD4+ T cells into helper Th2 cells, characterized by their cytokine-secretion profile that includes secretion of IL-4, IL-5, IL-6, IL-10, and IL-13, which favor a humoral immune response. Another dominant function of IL-4 is the regulation of immunoglobulin class switching to the IgG1 and IgE isotypes. Excessive IL-4 production by Th2 cells has been associated with elevated IgE production and allergy. Recombinant murine IL-4 is a 13.5 kDa globular protein containing 120 amino acid residues.

BIOLOGICAL ACTIVITY:

The ED₅₀ determined by the dose-dependent stimulation of the proliferation of murine HT-2 cells is ≤2.0 ng/ml, corresponding to a specific activity of ≥5 x 10⁵ units/mg.

FOR RESEARCH USE ONLY! Not to be used on humans.

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