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### 114

### Recombinant Mouse Interleukin-4, Animal Free

**Catalog No.** CRI129A-AF **Quantity**: 5 μg

CRI129B-AF 20 μg CRI129C-AF 1.0 mg

Alternate Names: Interleukin-4, BSF-1, IL-4, B cell Stimulating Factor, BCDF, BCGF

**Description:** Interleukin-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.

**Gene ID:** 16189

UniProt ID: P07750

Source: E. coli

Molecular Weight: 13.7 kDa (121 aa)

Formulation: Lyophilized from a sterile-filtered aqueous solution containing 0.1% Trifluoroacetic Acid

(TFA).

**Purity:** >95%, by reducing and non-reducing SDS-PAGE.

Endotoxin Level: ≤1 EU/µg of protein by kinetic LAL analysis

**Biological Activity:**  $ED_{50} \le 20$  ng/ml, as determined by the dose-dependent proliferation of Mouse HT-2 cells.

Specific Activity: ≥ 5 x 10<sup>4</sup> IU/mg, calibrated against recombinant mouse IL-4 WHO International Standard

(NIBSC code: 91/656).

Amino Acid Sequence: MHIHGCDKNH LREIIGILNE VTGEGTPCTE MDVPNVLTAT KNTTESELVC

RASKVLRIFY LKHGKTPCLK KNSSVLMELQ RLFRAFRCLD SSISCTMNES

KSTSLKDFLE SLKSIMQMDY S

**Reconstitution:** Centrifuge vial prior to opening. Add sterile distilled water to a concentration of 0.1

mg/ml. DO NOT VORTEX. Allow several minutes for complete reconstitution. Further

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dilutions should be made in appropriate buffered solutions.

Toll Free: 888-769-1246

Phone: 978-572-1070

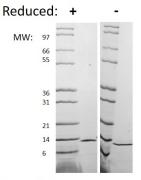
Fax: 978-992-0298

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#### Storage & Stability:

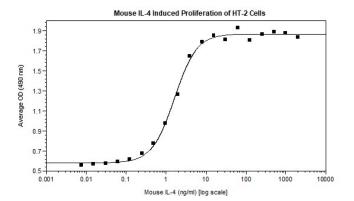
Lyophilized product is stable at room temperature for shipping purposes. Upon receipt, store desiccated at -20°C for up to 1 year.

Upon reconstitution, the preparation is stable for up to one month at 2-8°C. For long term storage, freeze in working aliquots and store at -20 to -80°C. For maximal stability, dilute to working aliquots in a 0.1% BSA solution. **Avoid repeated freeze-thaw cycles.** 



#### Mouse IL-4

Figure: 1 ug in each lane (-) nonreducing conditions and (+) reducing conditions in a 4-20% Tris-Glycine gel, stained with Coomassie Blue. Mouse IL-4 has a predicted MW of 13.7 kDa.



NOT FOR HUMAN USE. FOR RESEARCH ONLY. NOT FOR DIAGNOSTIC OR THERAPEUTIC USE.

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