

Recombinant Murine Interleukin-4 (rm IL-4)

Synonyms: BCGF, BCDF, B cell stimulating factor, BSF-1, Lymphocyte stimulatory factor, Binetrakin, Pitrakinra.

Introduction: Interleukin-4 is a pleiotropic cytokine produced primarily by activated T lymphocytes, basophils and mast cells. Multiple immune response-modulating functions are performed by IL-4 on a variety of cell types and it has an important role in the regulator of isotype switching, induction of IgE production in B lymphocytes and differentiation of precursor T helper cells. IL-4 binds to both membrane-bound and secreted soluble IL-4 receptors.

Description: Recombinant murine IL-4 produced in *E.Coli* is a single, non-glycosylated polypeptide chain containing 121 amino acids and having a molecular mass of 13.5 kDa. The rm IL-4 is purified by proprietary chromatographic techniques.

Source: *Escherichia Coli*.

Physical Appearance: Sterile filtered white lyophilized (freeze-dried) powder.

Formulation: Lyophilized from a 0.22 µm filtered solution in 25 mM sodium phosphate, 200 mM NaCl pH 6.5. The aliquots of 1 µg contain Trehalose 5% (w/vol) for better recovery

Solubility: It is recommended to reconstitute the lyophilized rm IL-4 in sterile H₂O not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

Stability: Lyophilized rm IL-4 although stable at room temperature for 3 weeks, should be stored desiccated below -18° C. Upon reconstitution rm IL-4 should be stored at 4° C between 2-7 days and for future use below -18° C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please avoid freeze-thaw cycles.

Purity: 95.0% as determined by SDS-PAGE

Endotoxin: The endotoxin level is less than 1 EU / µg determined by LAL method

Amino acid sequence: MHIHGCDKNH LREIIGILNE VTGEGTPCTE MDVPNVLAT KNTTESELVC
RASKVLRIFY LKHGKTPCLK KNSSVLMELQ RLFRAFRCLE SSISCTMNES KSTSLKDFLE SLKSIMQMDY
S

Biological Activity: The ED₅₀ as determined by STAT6 specific reporter gene read-out on murine Ba/F3 cells is 2.5 ng/ml.

This material is offered for **research only**. Not for use in human. For in vitro use only. ImmunoTools will not be held responsible for patent infringement or other violations that may occur with the use of our products.

<i>small</i>	2 µg	Cat.N°	12340042
<i>medium</i>	10 µg	Cat.N°	12340043
<i>large</i>	50 µg	Cat.N°	12340045
<i>x- large</i>	250 µg	Cat.N°	12340047
<i>xx- large</i>	1000 µg	Cat.N°	12340048

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