

Recombinant Murine Interleukin-4 (rm IL-4)

Murine **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.

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

Synonyms : BCGF, BCDF, B cell stimulating factor (BSF-1)

Source: *Escherichia coli*

AA Sequence: MHIHGCDKNH LREIIGILNE VTGEGTPCTE MDVPNVLAT KNTTESELVC
RASKVLRIFY LKHGKTPCLK KNSSVLMELQ RLFRAFRCCLD SSISCTMNES
KSTSLKDFLE SLKSIMQMDY S

Formulation: Lyophilisate from a 0.22 µm filtered carrier free solution in 25 mM sodium phosphate pH 6.5 + 250 mM NaCl

Reconstitution: Reconstitute in sterile endotoxin free water not less than 100 µg/ml

Stability: The lyophilized protein is stable for at least 2 years at -20°C. Reconstituted rm IL-4 is stable for at least 3 months when stored in concentrated working aliquots (100 ng/µl or higher) at -20°C. Avoid repeated freeze/thaw cycles.

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

Purity: 95% (verified by SDS-PAGE / silver stain)

Endotoxicity: The endotoxin level is less than 0.1 ng per µg (1EU/µg) determined by LAL method

Order N°: rm IL-4+Size
available sizes: 2 µg, 10 µg, 50 µg

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