



Recombinant Human IL-4
(Interleukin-4)

Catalog Number: 100-09
Accession Number: P05112

Specifications and Uses:

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

Description:

Interleukin-4 (IL-4) is an immuno-modulatory cytokine, produced primarily by a subgroup of helper T cells, known as Th2. IL-4 is known to induce naïve helper T cells to differentiate to Th2 cells, which subsequently produce more IL-4. Th2 cells regulate a wide variety of other immune cells including, B cells, where it has the ability to promote IgG to IgE isotype switching. Recombinant human IL-4 is a non-glycosylated protein, containing 130 amino acids, with a molecular weight of 15 kDa.

Source: *E.coli*

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

Formulation and Stability:

Recombinant human IL-4 is lyophilized with no additives.

Lyophilized product is very stable at -20°C. Reconstituted material should be aliquoted and frozen at -20°C. It is recommended that a carrier protein (0.1% HSA or BSA) is added for long term storage.

Reconstitution:

Centrifuge vial before opening. When reconstituting the product, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution. It is recommended to reconstitute the lyophilized product with sterile water at a concentration of 0.1 mg/mL, which can be further diluted into other aqueous solutions.

Protein Content and Purity (typically ≥ 98%) determined by:

HPLC, Reducing and Non-reducing SDS-PAGE, UV spectroscopy at 280 nm

Endotoxin Level:

Measured by kinetic LAL analysis and is typically ≤ 1 EU/μg protein.

Biological Activity:

The activity is determined by a proliferation assay using MC-9 cells and is typically less than 0.2 ng/mL.

AA Sequence:

MHKCDITLQE IIKTLNSLTE QKTLCTELTV TDIFAASKNT TEKETFCRAA TVLRQFYSHH EKDTRCLGAT
AQQFHRHKQL IRFLKRLDRN LWGLAGLNSC PVKEANQSTL ENFLERLTKTI MREKYSKCSS

THIS PRODUCT IS FOR RESEARCH USE ONLY AND IS NOT FOR USE IN HUMANS!

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