

BACKGROUND

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 and having a molecular mass of 15 kDa.

Alternative Names:

B cell Stimulating Factor, BSF-1, BCDF, BCGF

Amino Acid Sequence:

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

TECHNICAL INFORMATION

Source: *E.coli*

Physical Appearance:

Sterile Filtered white lyophilized (freeze-dried) powder.

Formulation:

Recombinant human IL-4 is lyophilized with no additives.

Stability:

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 determined by:

- UV spectroscopy at 280 nm
- RP-HPLC calibrated against a known standard
- Quantitation against a known standard via reducing and non-reducing SDS-PAGE gels.

Endotoxin Level:

Endotoxin level, as measured by LAL analysis, is <0.01ng/ug or <0.1EU/ug.

Biological Activity:

The activity is determined by a proliferation assay using TF-1 cells and is typically between 0.05-0.2 ng/ml.

Products are for research use only. They are not intended for human, animal, or diagnostic applications.

