

BACKGROUND:

Interleukin 4 (IL-4) is an immunomodulatory cytokine that functions to induce naïve helper T cells to differentiate into type 2 T helper (Th2) cells. Th2 cells subsequently produce more IL-4 in a positive feedback loop. IL-4 also promotes immunoglobulin IgG to IgE isotype switching on B cells. IL-4 binds the IL-4Ra receptor to activate STAT6 signaling.

Recombinant human Interleukin-4 is a non-glycosylated protein monomer, containing 130 amino acids and having a molecular mass of 15.1 kDa.

Cat. No.:
RP1009AF

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

AA Sequence:

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

TECHNICAL INFO

Source:
E. coli

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

Formulation:
0.1% Trifluoroacetic Acid (TFA)

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 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 measured by dose-dependent T11 cell proliferation, with Bioactivity Acceptance Criteria ED50 at 250 ng/mL

Animal Component-Free
This product is produced with no animal derived raw products. All processing and handling employs animal free equipment and animal free protocols.

