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Datasheet for 009-F01-B93-0005

rHuman IL-4 Protein

Overview

Description:	Human Interleukin-4 Recombinant Protein (Animal Free) - 009-F01-B93-0005
Item No.:	009-F01-B93-0005
Size:	5 µg
Applications:	Cellular Assay
Origin:	Human
Expressed in:	E. coli

Product Details

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, with a molecular weight of 15 kDa.
Synonyms:	B cell Stimulating Factor (BSF-1), Binetrakin, BCDF, BCGF, Lymphocyte stimulatory factor 1, Pitrakinra
Species of Origin:	Human
Expressed in:	E. coli
Type:	Recombinant Protein
Low Endotoxin:	Yes

Target Details

Gene Name:	IL4
Purity/Specificity:	Interleukin-4 is produced with no animal-derived raw products, animal free equipment and animal free protocols. Purity was determined to be greater than 98% as determined by HPLC, analysis by UV-Spectroscopy at 280nm, and by reducing and non-reducing SDS-PAGE.
Relevant Links:	• UniProtKB - P05112

Application Details

Suggested Applications:	Cellular Assay (Based on references)
Application Note:	Interleukin-4 Recombinant Protein has been tested by biological activity and is suitable as a control for polyclonal or monoclonal anti-Interleukin-4 in immunological assays.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
Other:	Endotoxin Level: Measured by kinetic LAL analysis and is typically ≤ 1 EU/µg protein. Biologic Activity: The activity is determined by a proliferation assay using MC-9 cells and is typically less than 0.2 ng/mL.

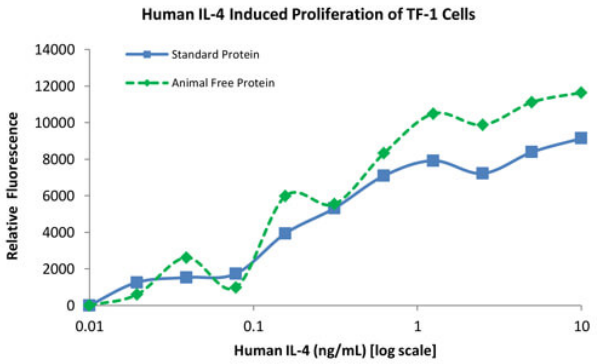
Formulation

Physical State:	Lyophilized
Buffer:	0.1% Trifluoroacetic acid
Preservative:	None
Stabilizer:	None
Reconstitution Volume:	5µl (5-50µl)
Reconstitution Buffer:	Restore with deionized water (or equivalent)

Shipping & Handling

Shipping Condition:	Ambient
Storage Condition:	Store vial at 4° C prior to restoration. Dilute only prior to immediate use. Maintain sterility. This product DOES NOT contain preservative. DO NOT VORTEX. We recommend adding a carrier protein such as HSA or BSA to 0.1% (i.e. 1.0 mg/mL). For best results aliquot contents and freeze at -20° C or colder. Avoid cycles of freezing and thawing. Centrifuge vial before each opening to dislodge contents from the cap and to clarify if contents are not clear after standing at room temperature.
Expiration:	Expiration date is six (6) months from date of receipt.

Images



SDS-PAGE

Bioactivity of Human Interleukin-4 Recombinant Protein . TF-1 cells were cultured with 0 to 10 ng/mL Human IL-4. Cell proliferation was measured after 72 hours and the linear portion of the curve was us used to calculate the ED50. The ED50 of Human IL-4 is 0.16-0.24 ng/mL. This value is comparable to expected range of less than 0.2 ng/mL.

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