

Datasheet for ABIN6700140

## IL-4 Protein



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### 1 Image

#### Overview

Quantity:	5 µg
Target:	IL-4 (IL4)
Origin:	Mouse
Source:	Escherichia coli (E. coli)
Protein Type:	Recombinant

#### Product Details

Purpose:	Mouse Interleukin-4 Recombinant Protein
Purification:	Interleukin-4 purity was determined to be greater than 95% as determined by HpLC and by reducing and non-reducing SDS-PAGE.
Purity:	95,00%
Endotoxin Level:	Measured by LAL is typically $\leq 1$ EU/µg protein.
Biological Activity Comment:	The activity is determined by dose-dependent induction of HT-2 cell proliferation and is typically less than 2 ng/mL.

#### Target Details

Target:	IL-4 (IL4)
Alternative Name:	IL4 ( <a href="#">IL4 Products</a> )
Background:	<p>Synonyms: B cell Stimulating Factor 1 (BSF-1), BCDF, BCGF, B-cell IgG differentiation factor, B-cell growth factor 1, IGG1 induction factor, Lymphocyte stimulatory factor 1</p> <p>Background: Interleukin-4 (IL-4) is an immuno-modulatory cytokine, produced primarily by a</p>

## Target Details

subgroup of helper T cells, known as Th2. IL-4 is known to induce naive 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 mouse IL-4 is a non-glycosylated protein, containing 121 amino acids, with a molecular weight of 13.5 kDa.

UniProt: [P07750](#)

Pathways: [JAK-STAT Signaling](#), [Regulation of Leukocyte Mediated Immunity](#), [Positive Regulation of Immune Effector Process](#), [Production of Molecular Mediator of Immune Response](#), [Proton Transport](#), [Activated T Cell Proliferation](#)

## Application Details

Application Notes: Other: User Optimized  
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.

Comment: Suggested\_Applications: Cellular Assay  
Other\_Performance\_Data:

Restrictions: For Research Use only

## Handling

Format: Lyophilized

Reconstitution: Reconstitution\_Buffer: Restore with deionized water (or equivalent)  
Reconstitution\_Volume: 5 µL (5-50 µL)

Buffer: Buffer: 0.1 % Trifluoroacetic acid  
Stabilizer: None

Preservative: Without preservative

Storage: 4 °C, -20 °C

Storage Comment: 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.

SDS-PAGE

**Image 1.** SDS-PAGE of Mouse Interleukin-4 Recombinant Protein Bioactivity of Mouse Interleukin-4 Recombinant Protein. MC-9 cells were cultured with 0 to 2 ng/mL Mouse IL-4. Cell proliferation was measured and the linear portion of the curve was used to calculate the ED50. The ED50 of Mouse IL-4 is 0.016-0.046 ng/mL. This value is comparable to expected range of less than 0.2 ng/mL.

