

41370. Mouse Interleukin-4 (IL-4)

Origin:	Recombinant	Cat. No.:	41370
Tag:	N-terminal 6xHis	Size:	0.1 mg
Source:	E.coli	Purity:	>95%
Other names:	IL-4	Species:	Mouse

Description

Expressed in E.coli with total 159 AA. Mw: 18.5 KDa (calculated). N-terminal 6xHis-tag and TEV cleavage site, 25 extra AA (highlighted). Recombinant antigen for research use or manufacturing only.

Introduction to the Molecule

Interleukin-4 (IL-4), also known as B cell-stimulatory factor-1, is a monomeric, approximately 13 kDa - 18 kDa Th2 cytokine that shows pleiotropic effects during immune responses. It is a glycosylated polypeptide that contains three intrachain disulfide bridges and adopts a bundled four alpha -helix structure. IL-4 is primarily expressed by Th2-biased CD4⁺ T cells, mast cells, basophils, and eosinophils. It promotes cell proliferation, survival, and immunoglobulin class switch to IgG4 and IgE in human B cells, acquisition of the Th2 phenotype by naïve CD4⁺ T cells, priming and chemotaxis of mast cells, eosinophils, and basophils, and the proliferation and activation of epithelial cells.

Amino Acid Sequence

MSYYHHHHHDYDIPTTENLYFQGAMGSGIHKCDITLQEIIKTLNSLTEQKTLCTELTVTDIFAAS
KNTTEKETFCRAATVLRQFYSHHEKDRCLGATAQQFHRHKQLIRFLKRLDRNLWGLAGLNSCP
VKEANQSTLENFLERLKTIMREKYSKCSS

Endotoxin Level: <0.2 EU/ug.

Applications: Standard ELISA test, Western Blot.

Formulation: Lyophilized at 1 mg/mL in NaCl 500mM, KCl 2.7mM, Na₂HPO₄ 10mM, KH₂PO₄ 1.8mM, pH 7.0.

Reconstitution: Add deionized water to prepare a working stock solution of approximately 1 mg/mL and let the lyophilized pellet dissolve completely.

Storage: Store lyophilized protein at -20°C. Aliquot reconstituted protein and store at -80°C. Avoid repeated freezing /thawing cycles.

Quality Control Test

BCA to determine quantity of the protein.
SDS PAGE to determine purity of the protein.

SDS-PAGE gel
