

Recombinant human IL-4 protein

Catalog Number: ATGP3983

PRODUCT INFORMATION

Expression system

HEK293

Domain

25-153aa

UniProt No.

P05112

NCBI Accession No.

NP_000580

Alternative Names

Pitrakinra, MGC79402, Lymphocyte stimulatory factor 1, Interleukin-4 isoform 1, Interleukin 4, IL-4, BSF1, Binetrakin, BCGF1, B-cell stimulatory factor 1, B-cell growth factor 1, BCDF

PRODUCT SPECIFICATION

Molecular Weight

16.1kDa (139aa)

Concentration

0.5mg/ml (determined by Absorbance at 280nm)

Formulation

Liquid. In Phosphate-Buffered Saline (pH 7.4) containing 10% glycerol

Purity

> 90% by SDS - PAGE

Endotoxin level

< 1 EU per 1ug of protein (determined by LAL method)

Biological Activity

Measured in a cell proliferation assay using TF-1 human erythroleukemic cell. The ED50 range $\leq$ 0.5 ng/ml.

Tag

His-Tag

Application

SDS-PAGE, Bioactivity

Storage Condition

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

BACKGROUND

Recombinant human IL-4 protein

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Description

IL-4 is a multi-functional cytokine that plays a critical role in the regulation of immune responses. It induces differentiation of naive helper T cells to Th2 cells. Upon activation by IL-4, Th2 cells subsequently produce additional IL-4 in a positive feedback loop. IL-4 is produced primarily by mast cells, Th2 cells, eosinophils and basophils. It is closely related and has functions similar to interleukin 13. This protein has many biological roles, including the stimulation of activated B-cell and T-cell proliferation, and the differentiation of B cells into plasma cells. It is a key regulator in humoral and adaptive immunity. IL-4 plays a dominant role in the development of allergic inflammation and asthma. Also, it is crucial in the development of allergic airway inflammation originates. Recombinant human IL-4, fused to His-tag at C-terminus, was expressed in HEK293 cell and purified by using conventional chromatography techniques.

Amino acid Sequence

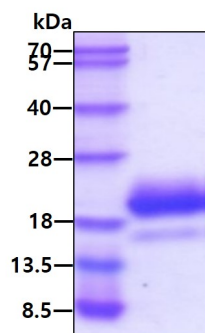
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General References

Bhattarai P., et al, (2016) Cell Reports. 17: 941-948.
Cheng Ho ., et al, (2016) Adv Exp Med Biol. 941:31-77.
Marsha Wills-Karp., et al, (2008) Sci Signal. 1:pe55.

DATA

SDS-PAGE



3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain

Biological Activity

Human IL-4 in a cell proliferation assay using TF-1 human erythroleukemic cell. The ED50 range ≤ 0.5 ng/ml.

