## NKMAXBio We support you, we believe in your research

# 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 ≤ 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**



# NKMAXBio We support you, we believe in your research

# Recombinant human IL-4 protein

Catalog Number: ATGP3983

## **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**

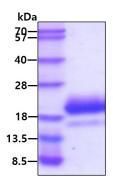
<DGSM>HKCDIT LQEIIKTLNS LTEQKTLCTE LTVTDIFAAS KNTTEKETFC RAATVLRQFY SHHEKDTRCL GATAQQFHRH KQLIRFLKRL DRNLWGLAGL NSCPVKEANQ STLENFLERL KTIMREKYSK CSS<HHHHHHH>

#### **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.

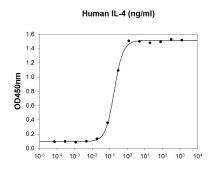
#### **DATA**

#### **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  $\leq 0.5$  ng/ml.

