

Product datasheet for AR09136PU-N

OriGene Technologies, Inc.

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Interleukin-4 / IL4 (25-153, His-tag) Human Protein

Product data:

Product Type: Recombinant Proteins

Description: Interleukin-4 / IL4 (25-153, His-tag) human recombinant protein, 50 μg

Species: Human
Expression Host: E. coli

Expression cDNA Clone

or AA Sequence:

MGSSHHHHHH SSGLVPRGSH MHKCDITLQE IIKTLNSLTE QKTLCTELTV TDIFAASKNT TEKETFCRAA TVLRQFYSHH EKDTRCLGAT AQQFHRHKQL IRFLKRLDRN LWGLAGLNSC

PVKEANQSTL ENFLERLKTI MREKYSKCSS

Tag: His-tag
Predicted MW: 17.2 kDa
Concentration: lot specific

Purity: >95% pure by SDS - PAGE

Buffer: Presentation State: Purified

State: Liquid purified protein

Buffer System: 20 mM Tris-HCl buffer (pH 8.0) containing 10% glycerol

Biological: The ED50 for this effect is less or equal to 0.5 ng/ml. Measured in a cell

proliferation assay using TF1 human erythroleukemic cells.

Endotoxin: < 1.0 EU per 1 ug of protein (determined by LAL method)

Preparation: Liquid purified protein

Protein Description: Recombinant Interleukin-4 protein, fused to His-tag at N-terminus, was expressed in E.coli

and was purified by conventional chromatography techniques, after refolding of the isolated

inclusion bodies in a renaturation buffer.

Storage: Store undiluted at 2-8°C for up to two weeks or (in aliquots) at -20°C or -70°C for longer.

Avoid repeated freezing and thawing.

Stability: Shelf life: one year from despatch.

RefSeq: <u>NP 000580</u>

Locus ID: 3565
UniProt ID: <u>P05112</u>





Cytogenetics: 5q31.1

Synonyms: IL-4, BSF1, Lymphocyte stimulatory factor 1, Binetrakin, Pitrakinra

Summary: The protein encoded by this gene is a pleiotropic cytokine produced by activated T cells. This

cytokine is a ligand for interleukin 4 receptor. The interleukin 4 receptor also binds to IL13, which may contribute to many overlapping functions of this cytokine and IL13. STAT6, a signal transducer and activator of transcription, has been shown to play a central role in mediating the immune regulatory signal of this cytokine. This gene, IL3, IL5, IL13, and CSF2 form a cytokine gene cluster on chromosome 5q, with this gene particularly close to IL13. This gene, IL13 and IL5 are found to be regulated coordinately by several long-range regulatory elements in an over 120 kilobase range on the chromosome. IL4 is considered an important cytokine for tissue repair, counterbalancing the effects of proinflammatory type 1 cytokines, however, it also promotes allergic airway inflammation. Moreover, IL-4, a type 2 cytokine, mediates and regulates a variety of human host responses such as allergic, anti-parasitic, wound healing, and acute inflammation. This cytokine has been reported to promote resolution of neutrophil-mediated acute lung injury. In an allergic response, IL-4 has an essential role in the production of allergen-specific immunoglobin (Ig) E. This proinflammatory cytokine has been observed to be increased in COVID-19 (Coronavirus disease 2019) patients, but is not necessarily associated with severe COVID-19 pathology. Two alternatively spliced transcript variants of this gene encoding distinct isoforms have been

reported. [provided by RefSeq, Aug 2020]

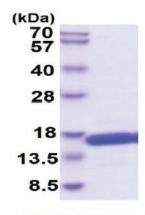
Protein Families: Druggable Genome, Secreted Protein

Protein Pathways: Allograft rejection, Asthma, Autoimmune thyroid disease, Cytokine-cytokine receptor

interaction, Fc epsilon RI signaling pathway, Hematopoietic cell lineage, Jak-STAT signaling

pathway, T cell receptor signaling pathway

Product images:



15% SDS-PAGE (3ug)