Recombinant human IL4

Catalog No: #AG0003

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Description

Product Name	Recombinant human IL4
Host Species	HEK293
Purification	> 95% by Tris-Bis PAGE;> 95% by SEC-HPLC
Immunogen Description	His25-Ser153
Target Name	IL4
Other Names	Human IL-4, h-IL-4, rh-IL-4, recombinant IL-4, interleukin-4
Accession No.	Uniprot:P05112Gene ID:3565
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GeneID	3565
Target Species	human
Calculated MW	14.9 KDa
Tag Info	addtional amino acid free
Formulation	0.22 μm filtered solution of PBS, pH 7.4.
Storage	Aliquot and store at -80°C. Avoid repeated freeze/thaw cycles.

Background

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 (1?3). It is a glycosylated polypeptide that contains three intrachain disulfide bridges and adopts a bundled four alpha -helix structure (4). Human IL-4 is synthesized with a 24 aa signal sequence. Alternate splicing generates an isoform with a 16 aa internal deletion. Mature human IL-4 shares 55%, 39% and 43% aa sequence identity with bovine, mouse, and rat IL-4, respectively. Human, mouse, and rat IL-4 are species-specific in their activities (5?7). IL-4 exerts its effects through two receptor complexes (8, 9). The type I receptor, which is expressed on hematopoietic cells, is a heterodimer of the ligand binding IL-4 R alpha and the common gamma ?chain (a shared subunit of the receptors for IL-2, -7, -9, -15, and ?21). The type II receptor on nonhematopoietic cells consists of IL-4 R alpha and IL?13?R alpha 1. The type II receptor also transduces IL-13 mediated signals. IL-4 is primarily expressed by Th2-biased CD4+?T cells, mast cells, basophils, and eosinophils (1, 2). It promotes cell proliferation, survival, and immunoglobulin class switch to IgG4 and IgE in human B cells, acquisition of the Th2 phenotype by na?ve CD4+?T cells, priming and chemotaxis of mast cells, eosinophils, and basophils, and the proliferation and activation of epithelial cells (10?13). IL-4 plays a dominant role in the development of allergic inflammation and asthma (12, 14).

Note: This product is for in vitro research use only