

Active Recombinant Human CSF2 and IL4 Fusion Protein, Animal Free

Cat. No. IL4-06H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant human GM-CSF and IL-4 protein without tag was expressed in Human Cells. Animal Free and Xeno Free
Species	Human
Source	Human Cells
Description	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

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

immunoglobulin (Ig) E. This pro-inflammatory 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.

Bio-activity

The activity was measured by its ability to stimulate the proliferation of human TF-1 cells (human erythroleukemic indicator cell line).

Endotoxin

<0.5 EU/ µg

Purity

High Purity, >95% by SDS-PAGE

Stability

Use a manual defrost freezer and avoid repeated freeze-thaw cycles. In general: 12 months from date of receipt, -20 to -80 centigrade as supplied. 1 month, 2 to 8 centigrade under sterile conditions after reconstitution. 3 months, -20 to -80 centigrade under sterile conditions after reconstitution.

Storage Buffer

Lyophilized from a 0.2 µm filtered solution in PBS without carrier protein

Reconstitution

Briefly centrifuge the vial before opening. It is recommended to reconstitute the protein in 200ul sterile PBS or basic medium and add into appropriate volume of dendritic cell basic medium. The medium with DC cocktail supplement could be stored at 4 centigrade for one month.

GENE INFORMATION

Gene Name

IL4 interleukin 4 [Homo sapiens (human)]

Official Symbol

IL4

Synonyms

IL4; interleukin 4; interleukin-4; B cell growth factor 1; B_cell stimulatory factor 1;

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BCGF 1; BCGF1; BSF1; IL 4; lymphocyte stimulatory factor 1; MGC79402; binetrakin; pitrakinra; IL-4; BSF-1; BCGF-1;

Gene ID 3565

mRNA Refseq NM_000589

Protein Refseq NP_000580

MIM 147780

UniProt ID P05112

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