

Recombinant Human Chemokine (C-C motif) Ligand 18

Human, Recombinant (CCL18)

Expressed in *E. coli*

Cat. No. CRP08106

Lot. No. (See product label)

PRODUCT INFORMATION

Description: CCL18, is a novel CC chemokine that is highly homologous to MIP-1 α (61% amino acid sequence identity). CCL18 cDNA encodes an 89 aa residue precursor protein with a 20 aa putative signal peptide that is cleaved to generate a 69 aa residue mature protein which lacks potential glycosylation sites. In vitro, CCL18 mRNA expression is induced in alternatively activated macrophages by Th2 cytokines such as IL-4, IL-10 and IL-13, and inhibited by IFN- γ . CCL18 mRNA is also expressed by GM-CSF/IL-4-induced monocyte-derived dendritic cells. In vivo, CCL18 is highly expressed in lung and placenta but is not expressed in epidermal Langerhans cells. Recombinant CCL18 has been shown to chemoattract naive T cells, but not monocytes or neutrophils.

Amino-Acid Sequence: 69aa, non-glycosylated

M. W. : 7.8 kDa

Recombinant: Expressed in *E. coli*

Purity: >97% by SDS-PAGE and HPLC analyses.

Formulation: Lyophilized from a 0.2mm filtered concentrated (1.0mg/ml) solution in 20mM PB, pH 7.4, 100mM NaCl.

Specific Activity: Fully biologically active when compared to standard. Determined by its ability to chemoattract human T lymphocytes using a concentration range of 1.0 -10.0 ng/ml.

Endotoxin: Less than 1EU/mg of rHuMIP-4/CCL18 as determined by LAL method.

Reconstitution: We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1% BSA to a concentration of 0.1-1.0 mg/ml. Stock solutions should be apportioned into working aliquots and stored at $\leq -20^{\circ}\text{C}$. Further dilutions should be made in appropriate buffered solutions.

Storage: This lyophilized preparation is stable for several weeks at 2-8 $^{\circ}\text{C}$, but should be kept at -20 $^{\circ}\text{C}$ for long term storage, preferably desiccated. Upon reconstitution, the preparation is stable for up to one week at 2-8 $^{\circ}\text{C}$. For maximal stability, apportion the reconstituted preparation into working aliquots and store at -20 $^{\circ}\text{C}$ to -70 $^{\circ}\text{C}$. Avoid repeated freeze/thaw cycles.

GENE INFORMATION

Gene Name: [CCL18](#)

Synonym: CKb7; PARC; AMAC1; DCCK1; MIP-4; AMAC-1; DC-CK1; SCYA18; CCL18_HUMAN; C-C motif chemokine 18 [Precursor]; Small-inducible cytokine A18; Macrophage inflammatory protein 4; ulmonary and activation-regulated chemokine; CC chemokine PARC; Alternative macrophage activation-associated CC chemokine 1; Dendritic cell chemokine 1; CCL18; chemokine (C-C motif) ligand 18 (pulmonary and activation-regulated)

mRNA Refseq: [NM_002988](#)

Protein Refseq: [NP_002979](#)

MIM: [603757](#)

GeneID: [6362](#)

UniProt ID: P55774

Chromosome Location: 17q11.2

Pathway: Cytokine-cytokine receptor interaction

Function: chemokine activity

REFERENCES

1. Hieshima et al. A novel human CC chemokine PARC that is most homologous to macrophage-inflammatory protein-1-alpha/LD78-alpha and chemotactic for T lymphocytes, but not for monocytes. 1997; J. Immun. 159: 1140-1149.

2. Tasaki et al. Chemokine PARC gene (SCYA18) generated by fusion of two MIP-1-alpha/LD78-alpha-like genes. 1999; Genomics 55: 353-357.

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