

## CCL18 Protein, Human, Recombinant (His)

### General Information

Synonyms:	PARC;CCL18;CKb7;DC-CK1;chemokine (C-C motif) ligand 18;MIP-4;AMAC-1;DCCK1;SCYA18;MIP4;AMAC1
Protein Construction:	A DNA sequence encoding human CCL18 (NP_002979.1) (Ala21-Ala89) was expressed with a polyhistidine tag at the C-terminus. Predicted N terminal: Ala 21
Species:	Human
Expression Host:	P. pastoris (Yeast)
Accession:	P55774
Molecular Weight:	9.2 kDa (predicted); 9 kDa (reducing conditions)

### QC Testing

Biological Activity:	Activity testing is in progress. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	> 95 % as determined by SDS-PAGE
Endotoxin:	Please contact us for more information.
Formulation:	Lyophilized from a solution filtered through a 0.22 µm filter, containing PBS, pH 7.4. Typically, a mixture containing 5% to 8% trehalose, mannitol, and 0.01% Tween 80 is incorporated as a protective agent before lyophilization.

### Preparation and Storage

**Reconstitution:**  
Reconstituted with sterile deionized water to 0.25 mg/mL. Reconstitution conditions may vary depending on the lot.

**Stability & Storage:**

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

**Shipping:**

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

### Protein Background

CCL18 is a chemotactic cytokine involved in the pathogenesis and progression of various disorders, including cancer. Proof showed high levels of CCL18 in the serum of epithelial ovarian carcinoma patients suggesting its potential as a circulating biomarker. CCL18 chemokine has an important role in chemokine-mediated tumor metastasis, and may serve as a potential predictor for poor survival outcomes for ovarian cancer. (CCL18) is

predominantly secreted by M2-tumor associated macrophages (TAMs) and promotes malignant behaviors of various human cancer types. CCL18 has a correlation with cardiac function in patients with AAMI and it might be considered as an indicator of poor LVEF in patients with AAMI. Circulating and WAT-secreted CCL18 correlates with insulin resistance and metabolic risk score. Because CCL18 is macrophage-specific and associates with adipose immune gene expression, it may constitute a marker of WAT inflammation. Macrophages are thought to be the main source of CCL18, and the effect of pirfenidone, an anti-fibrotic agent for idiopathic pulmonary fibrosis, on the expression of CCL18 in macrophages warrants investigation.

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Tel:781-999-4286    E\_mail:info@targetmol.com    Address:34 Washington Street,Wellesley Hills,MA 02481