# Data Sheet (Cat.No.TMPY-04671)

TargetMol

## MCP-5/CCL12 Protein, Mouse, Recombinant (His)

### General Information

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|---|---|
| Synonyms: | chemokine (C-C motif) ligand 12;MCP-5;Scya12;CCL12 |
| Protein Construction: | A DNA sequence encoding the mouse Ccl12 (NP_035461.2) (Gly23-Gly104) was expressed with a polyhistidine tag at the C-terminus. Predicted N terminal: Gly 23 |
| Species: | Mouse |
| Expression Host: | P. pastoris (Yeast) |
| Accession: | Q545B5 |
| Molecular Weight: | 10.7 kDa (predicted) |

### QC Testing

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|---|---|
| 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: | > 90 % 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:

A Certificate of Analysis (CoA) containing reconstitution instructions is included with the products. Please refer to the CoA for detailed information.

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

Ccl12 prevented initiation of the reparative response by prolonging inflammation and inhibiting fibroblast conversion to myofibroblasts, resulting in diminished scar formation. Macrophage secretion of Ccl12 directly impaired fibronectin and collagen deposition and indirectly stimulated collagen degradation through upregulation of matrix metalloproteinase-2. In post-MI patients, circulating LPS levels strongly associated with the Ccl12 homologue monocyte chemotactic protein 1 (MCP-1). Both MCP-1 and MCP-5 are HIF-1 target genes and that

HIF-1alpha is involved in transcriptional induction of these two chemokines in astrocytes by hypoxia.



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