

# Active GMP Recombinant Mouse Csf1 Protein, His-Tagged

**Cat. No.** Csf1-01M    **Lot. No.** (See product label)

## SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|-------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Overview</b> | GMP Recombinant Mouse Csf1 Protein, His-Tagged was expressed in Escherichia coli cell-derived in an animal component free process under cGMP guidelines.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Species</b>          | Mouse                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Source</b>           | E.coli                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Description</b>      | Macrophage Colony-Stimulating Factor (M-CSF), is a secreted cytokine which causes hematopoietic stem cells to differentiate into macrophages or other related cell types. The active form of M-CSF/CSF-1 is found extracellularly as a disulfide-linked homodimer, and is thought to be produced by proteolytic cleavage of membrane-bound precursors. M-CSF/CSF-1 induces cells of the monocyte/macrophage lineage. It also plays a role in immunological defenses, bone metabolism, lipoproteins clearance, fertility and pregnancy. Upregulation of M-CSF/CSF-1 in the infarcted myocardium may have an active role in healing not only through its effects on cells of monocyte/macrophage lineage, but also by regulating endothelial cell chemokine expression. |
| <b>Form</b>             | Lyophilized                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Bio-activity</b>     | Measure by its ability to induce proliferation in NFS-60 cells. The ED50 for this effect is <2 ng/mL. The specific activity of recombinant mouse M-CSF is approximately >5x 10 <sup>5</sup> IU/mg.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>AA Sequence</b>      | MKEVSEHCSHMIGNGHLKVLQQLIDSQMETSCQIAFEFVDQEQLDDPVCYLKKAFFL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

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VQDIIDETMRFKDNTPNANATERLQELSNLNSC  
FTKDYEEQNKACVRTFHETPLQLLEKIKNFFDETKNLLEKDOWNIFTKNCNNSFAKCS  
SRDVVTKP with polyhistidine tag at the C-terminus

|                       |                                                                                                                                                                                                                         |
|-----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Endotoxin</b>      | <0.1 EU per 1 µg of the protein by the LAL method.                                                                                                                                                                      |
| <b>Purity</b>         | >98% as determined by SDS-PAGE analysis. Purified by Ni-NTA chromatography.                                                                                                                                             |
| <b>Notes</b>          | Please use within one month after protein reconstitution.                                                                                                                                                               |
| <b>Storage</b>        | Lyophilized protein should be stored at -20°C. Upon reconstitution, protein aliquots should be stored at -20°C or -80°C.                                                                                                |
| <b>Storage Buffer</b> | The protein was lyophilized from a solution containing 1X PBS, pH 8.0.                                                                                                                                                  |
| <b>Reconstitution</b> | It is recommended to reconstitute the lyophilized protein in sterile H <sub>2</sub> O to a concentration not less than 100 µg/mL and incubate the stock solution for at least 20 min to ensure sufficient re-dissolved. |

## GENE INFORMATION

|                        |                                                                              |
|------------------------|------------------------------------------------------------------------------|
| <b>Gene Name</b>       | Csf1 colony stimulating factor 1 (macrophage) [ Mus musculus (house mouse) ] |
| <b>Official Symbol</b> | Csf1                                                                         |
| <b>Synonyms</b>        | op; Csfm; MCSF; BAP025; Mhdabap25                                            |
| <b>Gene ID</b>         | 12977                                                                        |
| <b>mRNA Refseq</b>     | NM_001113529.1                                                               |

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| Protein Refseq | NP_001107001.1 |
|----------------|----------------|

|            |        |
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| UniProt ID | P07141 |
|------------|--------|

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