

## Active Recombinant Rat Csf1

**Cat. No.** Csf1-12R    **Lot. No.** (See product label)

### SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|-------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Overview</b> | Recombinant Rat Csf1 was expressed in E. coli.                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Species</b>          | Rat                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Source</b>           | E.coli                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Description</b>      | The colony stimulating factor 1 (CSF1), also known as macrophage colony-stimulating factor (M-CSF), is a secreted cytokine which influences hematopoietic stem cells to differentiate into macrophages or other related cell types. Eukaryotic cells also produce M-CSF in order to combat intercellular viral infection. (See colony-stimulating factor.) M-CSF binds to the Colony stimulating factor 1 receptor. It may also be involved in development of the placenta. |
| <b>Bio-activity</b>     | ED50 was determined by the dose-dependent stimulation of the proliferation of murine M-NFS-60 cells is less than or equal to 5.0 ng/ml, corresponding to a specific activity of $>2 \times 10^5$ units/mg.                                                                                                                                                                                                                                                                  |
| <b>Molecular Mass</b>   | 18.1 kDa                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>AA Sequence</b>      | MEVSEHCSHMIGNGHLQILQQLIDSQMETACLIEYKFVDQEQLDDPVCYLKKAFLV<br>QVIIETMRFKDNTNPAN ATERLQELSMKLNSCFIKDYKEQNEACVQTYKESPLRL<br>EKIKNFFNETKNFLEKDOWNIFSKNCNDSLAKCSSRD VVTKP                                                                                                                                                                                                                                                                                                         |
| <b>Endotoxin</b>        | Endotoxin level is $<0.1$ ng/g of protein ( $<1$ EU/g).                                                                                                                                                                                                                                                                                                                                                                                                                     |

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|                            |                                                                                                                               |
|----------------------------|-------------------------------------------------------------------------------------------------------------------------------|
| <b>Purity</b>              | >95% as determined by SDS-PAGE and Coomassie blue staining                                                                    |
| <b>Storage Buffer</b>      | Lyophilized from a 0.2 M filtered solution of 20mM phosphate buffer, 100mM NaCl, pH 7.2                                       |
| <b>Reconstitution</b>      | Resuspend the protein in the desired concentration in proper buffer                                                           |
| <b>GENE INFORMATION</b>    |                                                                                                                               |
| <b>Gene Name</b>           | Csf1 colony stimulating factor 1 (macrophage) [ Rattus norvegicus (Norway rat) ]                                              |
| <b>Official Symbol</b>     | Csf1                                                                                                                          |
| <b>Synonyms</b>            | Csf1; colony stimulating factor 1 (macrophage); macrophage colony-stimulating factor 1; CSF-1; MCSF; NP_076471.3; EC 2.7.10.1 |
| <b>Gene ID</b>             | 78965                                                                                                                         |
| <b>mRNA Refseq</b>         | NM_023981                                                                                                                     |
| <b>Protein Refseq</b>      | NP_076471                                                                                                                     |
| <b>UniProt ID</b>          | Q8JZQ0                                                                                                                        |
| <b>Chromosome Location</b> | 2q34                                                                                                                          |
| <b>Pathway</b>             | Cytokine-cytokine receptor interaction; Cytokines and Inflammatory Response (BioCarta); Hematopoietic cell lineage            |
| <b>Function</b>            | cytokine activity; growth factor activity; macrophage colony-stimulating factor receptor binding                              |

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