

## Active Recombinant Human CSF1 (33-190aa), Met tagged

**Cat. No.** CSF1-033E    **Lot. No.** (See product label)

### SPECIFICATION

|                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Overview</b>            | Recombinant Human CSF1 (Glu33-Ser190, with an Nterminal Met) was expressed in E. coli and produced using nonanimal reagent in an animalfree laboratory.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Species</b>                     | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Source</b>                      | E.coli                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>ProteinLength</b>               | 33-190 a.a.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Description</b>                 | MCSF, also known as CSF1, is a four- $\alpha$ -helical bundle cytokine that is the primary regulator of macrophage survival, proliferation and differentiation. MCSF is also essential for the survival and proliferation of osteoclast progenitors. MCSF also primes and enhances macrophage killing of tumor cells and microorganisms, regulates the release of cytokines and other inflammatory modulators from macrophages, and stimulates pinocytosis . MCSF increases during pregnancy to support implantation and growth of the decidua and placenta. Sources of MCSF include fibroblasts, activated macrophages, endometrial secretory epithelium, bone marrow stromal cells and activated endothelial cells. |
| <b>Nterminal Sequence Analysis</b> | Met                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Molecular Mass</b>              | 18.5 kDa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>SDSPAGE</b>                     | 37 kDa, nonreducing conditions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

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|------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Activity</b>        | Measured in a cell proliferation assay using MNFS60 mouse myeloid cells. The ED50 for this effect is typically 0.5 – 1.5 ng/mL.                                                                                                                                              |
| <b>Endotoxin Level</b> | <1.0 EU per 1µg of the protein by the LAL method.                                                                                                                                                                                                                            |
| <b>Purity</b>          | >97%, by SDS-PAGE under reducing conditions and visualized by silver stain.                                                                                                                                                                                                  |
| <b>Formulation</b>     | Lyophilized from a 0.2 µm filtered solution in PBS. See Certificate of Analysis for details.                                                                                                                                                                                 |
| <b>Reconstitution</b>  | Reconstitute at 200 µg/mL in sterile PBS.                                                                                                                                                                                                                                    |
| <b>Shipping</b>        | The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.                                                                                                                                                      |
| <b>Storage</b>         | Use a manual defrost freezer and avoid repeated freeze-thaw cycles. 1. 12 months from date of receipt, 20 to 70 °C as supplied. 2. 1 month, 2 to 8 °C under sterile conditions after reconstitution. 3. 3 months, 20 to 70 °C under sterile conditions after reconstitution. |
| <b>Unitprot ID</b>     | P09603                                                                                                                                                                                                                                                                       |

## GENE INFORMATION

|                        |                                                                                                                                                    |
|------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Gene Name</b>       | CSF1 colony stimulating factor 1 (macrophage) [ Homo sapiens ]                                                                                     |
| <b>Official Symbol</b> | CSF1                                                                                                                                               |
| <b>Synonyms</b>        | CSF1; colony stimulating factor 1; MCSF; MGC31930; macrophage colony-stimulating factor 1; CSF-1; lanimostim; macrophage colony stimulating factor |

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|-------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Gene ID</b>                      | 1435                                                                                                                                                                                         |
| <b>mRNA Refseq</b>                  | NM_000757                                                                                                                                                                                    |
| <b>Protein Refseq</b>               | NP_000748                                                                                                                                                                                    |
| <b>MIM</b>                          | 120420                                                                                                                                                                                       |
| <b>Chromosome Location</b>          | 1p21-p13                                                                                                                                                                                     |
| <b>Pathway</b>                      | Cytokine-cytokine receptor interaction; Hematopoietic cell lineage; Osteoclast differentiation; Rheumatoid arthritis; Signaling events mediated by PTP1B; Signaling events mediated by TCPTP |
| <b>Function</b>                     | cytokine activity; growth factor activity; macrophage colony-stimulating factor receptor binding; protein homodimerization activity                                                          |
| <b>PDB rendering based on 1hmc.</b> |                                                                                                          |