DATASHEET

# Recombinant Human Macrophage Colony-stimulating Factor

CAT. NO. ARP6719

## KEY FEATURES

| | | | |
|---|---|---|---|
| Target | Macrophage Colony-stimulating Factor | Source/Expression System | E.coli |
| Reactivity | Human | Aapplication | SDS-PAGE |
| Abbreviation | rHuM-CSF | | |

## BACKGROUND

Macrophage Colony Stimulating Factor (M-CSF) , also named CSF-1, is a hematopoietic growth factor that is involved in the proliferation, differentiation, and survival of monocytes, macrophages, and bone marrow progenitor cells. It is produced by osteoblasts (as a result of endocrine stimulation by parathyroid hormone) exerts paracrine effects on osteoclasts and can interact with CSF1R. M-CSF is a four α-helical bundle cytokine and its active form is found extracellularly as a disulfide-linked homodimer. Four transcript variants encoding three different isoforms have been reported for M-CSF gene. Although forms may vary, all of them contain the N-terminal 150 a.a. portion that is necessary and sufficient for interaction with the receptor. The first 223 a.a. of mature human M-CSF shares 88%, 86%, 81% and 74% sequence identity with corresponding regions of dog, cow, mouse and rat M-CSF, respectively. Human M-CSF is active in the mouse, but mouse M-CSF is reported to be species-specific. Recombinant human M-CSF is a 36.8kDa homodimeric protein consisting of two 159 amino acid polypeptide subunits.

## PRODUCT OVERVIEW

| | |
|---|---|
| Molecular Weight | Approximately 36.8 kDa, a disulfide-linked homodimer consisting of two 159 amino acid polypeptide chains. |
| Accession | P09603-3 Glu33-Ser191 |
| A.A. Sequence | EEVSEYCSHMIGSGHLQSLQRLIDSQMETSCQITFEFVDQEQLKDPVCYLKKAFLLVQDIMEDTMRFRDNTPNAIAI VQLQELSLRLKSCFTKDYEEHDKACVRTFYETPLQLLEKVKNVFNETKNLLDKDWNIFSKNCNNSFAECSSQGHERQ SEGS |
| Purity | ＞96% by SDS-PAGE or HPLC. |
| Biological Activity | Fully biologically active when compared to standard. The ED50 as determined by a cell proliferation assay using murine M-NFS-60 cells is less than 1 ng/ml, corresponding to a specific activity of ≥ 1.0×10^6 IU/mg. |
| Formulation | Lyophilized from a 0.2 μm filtered concentrated solution in 20 mM PB, with 150 mM NaCl, pH 7.4. |
| Appearance | Sterile filtered White lyophilized (freeze-dried) powder. |
| Endotoxin | < 0.1 EU/μg of rMuTPO protein as determined by LAL method. |
| Reconstitution | Before use this product, please read the direction below carefully. This vial must be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in a sterile distilled water or aqueous buffer containing 0.1% BSA to a concentration of 0.1-1.0 mg/ml. Stock solutions should be apportioned into working aliquots and stored at ≤ -20°C. Further dilutions should be made in appropriate buffered solutions. |

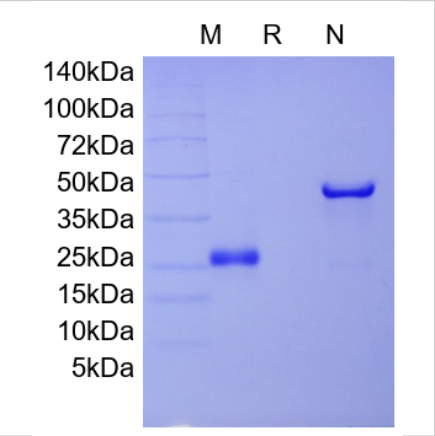
*AREX continuously optimizes our products. Webpage content may not reflect the latest updates. For inquiries, please contact info@arexbio.com or your local distributor.

DATASHEET

# Recombinant Human Macrophage Colony-stimulating Factor

CAT. NO. ARP6719

## DATA




SDS-PAGE

## STORAGE

For long term storage, the product should be stored ≤ -20°C. Please avoid repeated freeze-thaw cycles after reconstitution. 36 months from date of receipt, -20 to -70°C as supplied. 1 month, 2 to 8°C under sterile conditions after reconstitution. 3 months, -20 to -70°C under sterile conditions after reconstitution.

## NOTE

For Research Use Only. Not for diagnostic, therapeutics, prophylactic or in vivo use.