

**DATASHEET**  
Version 20181206**M-CSF, Rat****Cat. No.:** Z03301-50**Size:** 50.0 ug**Synonyms:** Macrophage Colony Stimulating Factor, CSF-1, M-CSF**Description:**

Macrophage-Colony Stimulating Factor (M-CSF), also known as Colony Stimulating Factor-1 (CSF-1), can stimulate the survival, proliferation and differentiation of mononuclear phagocytes, in addition to the spreading and motility of macrophages. M-CSF is mainly produced by monocytes, macrophages, fibroblasts, and endothelial cells. Interaction of M-CSF with its receptor, c-fms, has been implicated in the growth, invasion, and metastasis of several types of cancer, including breast and endometrial cancer. Recombinant Rat Macrophage Colony Stimulating Factor (M-CSF) produced in *E.coli* is a disulfide-linked homodimer containing two non-glycosylated polypeptide chains of 155 amino acids each. A fully biologically active molecule, rrM-CSF has a molecular mass of 28 kDa analyzed by reducing SDS-PAGE and is obtained by chromatographic techniques at GenScript.

**Source:** *E. coli***Biological Activity:** ED<sub>50</sub> < 5 ng/ml, measured in a cell proliferation assay using Murine M-NFS-60 cells, corresponding to a specific activity of > 2×10<sup>5</sup> units/mg.**Molecular Weight:** 28 kDa, observed by reducing SDS-PAGE.**Formulation:** Lyophilized after extensive dialysis against 50mM Tris, 150mM NaCl, pH 8.0.**Reconstitution:** Reconstituted in ddH<sub>2</sub>O at 100 µg/ml.**Purity:** > 95% as analyzed by SDS-PAGE.**Endotoxin Level:** < 0.2 EU/µg, determined by LAL method.**Storage:** Lyophilized recombinant Rat Macrophage Colony Stimulating Factor(M-CSF) remains stable up to 6 months at lower than -70°C from date of receipt. Upon reconstitution, Rat M-CSF should be stable up to 1 week at 4°C or up to 3 months at -20°C.