Rev08
Update: Sep,11,2025

DATASHEET

M-CSF, Rat

Cat. No.: Z03301

Product Introduction

Species	Rat
Protein Construction	Expressed with an N-terminal Met. **M-CSF (Glu33-Pro186)** **Accession # Q8JZQ0-1**
Purity	> 95% as analyzed by SDS-PAGE
Endotoxin Level	< 0.2 EU/μg of protein by gel clotting method
Biological Activity	ED_{50} < 5.0 ng/ml, measured in a cell proliferation assay using Murine M-NFS-60 cells, corresponding to a specific activity of > 2.0×10^5 U/mg.
Expression System	E. coli
Apparent Molecular Weight	~28 kDa, on SDS-PAGE under non-reducing conditions.
Formulation	Lyophilized after extensive dialysis against 50 mM Tris, 150 mM NaCl, pH 8.0.
Reconstitution	It is recommended that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute the lyophilized powder in ddH_2O up to 100 μg/ml.
Storage & Stability	Upon receiving, this product remains stable for 6 months at lower than -70°C. Upon reconstitution, the product should be stable for 1 week at 4°C or for 3 months at -20°C. For long term storage it is recommended that a carrier protein (example 0.1% BSA) be added. Avoid repeated freeze-thaw cycles.

Background

Target Background : Macrophage-Colony Stimulating Factor (M-CSF), also known as Colony Stimulating Factor-1 (CSF-1), is a hematopoietic growth factor. It can stimulate the survival, proliferation and differentiation of mononuclear phagocytes, in addition to the spreading and motility of macrophages. In mammals, it exits three isoforms, which invariably share an N-terminal 32-aa signal peptide, a 149-residue growth factor domain, a 21-residue transmembrane region and a 37-aa cytoplasmictail. M-CSF is mainly produced by monocytes, macrophages, fibroblasts, and endothelial cells. M-CSF interaction with its receptor, c-fms, has been implicated in the growth, invasion, and metastasis of of several diseases, including breast and endometrial cancers. The biological activity of human M-CSF is maintained within the 149-aa growth factor domain, and it is only active in the disulfide-linked dimeric form, which is bonded at Cys63.

Synonyms : CSF1; CSF-1; MCSF; colony stimulating factor 1; Macrophage Colony Stimulating Factor; Lanimostim; MGC31930; MGI-IM

For laboratory research use only. Direct human use, including taking orally and injection and clinical use are forbidden.

Manufacturer: Nanjing GenScript Biotech Co., Ltd. No. 28 Yongxi Road, Jiangning District, Nanjing, Jiangsu, China