GenScript Make Research Easy

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#### DATASHEET

# M-CSF, Human(CHO-expressed)

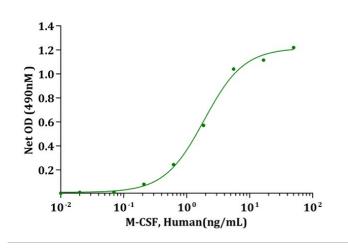
Cat. No.: Z02924

### **Product Introduction**

Species	Human
Protein Construction	M-CSF (Glu33-Ser190) Accession # P09603-3
Purity	> 95% as analyzed by SDS-PAGE > 95% as analyzed by HPLC
Endotoxin Level	< 0.2 EU/ $\mu$ g 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 $\times$ 10 <sup>5</sup> units/mg.
Expression System	СНО
Apparent Molecular Weight	32~40 kDa, on SDS-PAGE under non-reducing conditions.
Formulation	Lyophilized after extensive dialysis against PBS.
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 <sub>2</sub> O or PBS up to 100 $\mu$ g/ml.
Storage & Stability	Upon receiving, this product remains stable for up to 6 months at lower than -70°C. Upon reconstitution, the product should be stable for up to 1 week at 4°C or up to 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.

### Examples





#### **Biological Activity**

M-CSF, Human (Cat. No. Z02924) stimulates cell proliferation of M-NFS-60 cells. The ED<sub>50</sub> for this effect is less than 5ng/mL.

## 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 Nterminal 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.

生产商: 南京金斯瑞生物科技有限公司 江苏省南京市江宁区科学园雍熙路28号 Manufacturer: Nanjing GenScript Biotech Co., Ltd. No. 28 Yongxi Road, Jiangning District, Nanjing, Jiangsu, China