Rev03
Update: Dec,14,2021

DATASHEET

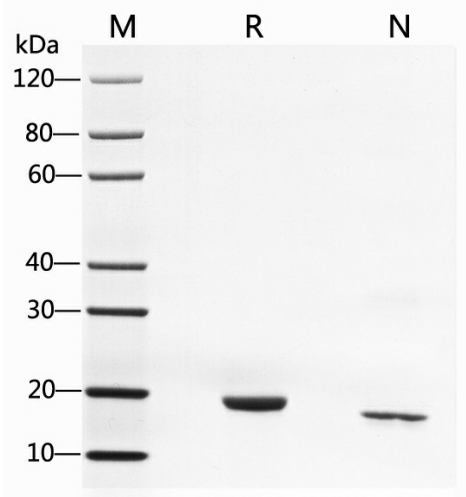
G-CSF, Human

Cat. No.: Z02974

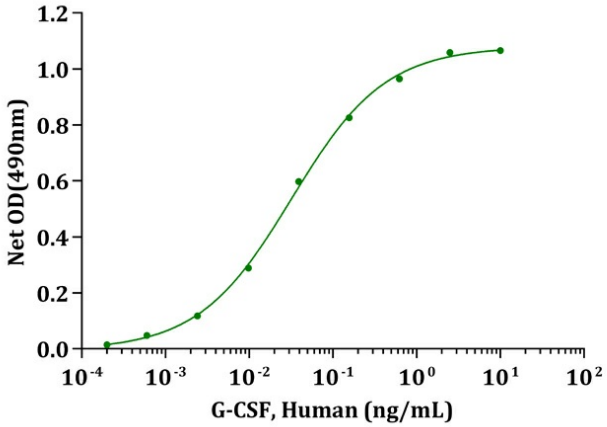
Product Introduction

Species	Human
Protein Construction	Expressed with an N-terminal Met. **G-CSF (Thr27-Pro200) Accession # Q8N4W3**
Purity	> 95% as analyzed by SDS-PAGE > 95% as analyzed by HPLC
Endotoxin Level	< 0.2 EU/μg of protein by gel clotting method
Biological Activity	ED_{50} < 0.1 ng/ml, measured by a cell proliferation assay of M-NFS-60 cells, corresponding to a specific activity of > 1.0×10^7 IU/mg.
Expression System	E. coli
Apparent Molecular Weight	~18.8 kDa, on SDS-PAGE under reducing conditions.
Formulation	Lyophilized after extensive dialysis against 25 mM Tris, 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 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



2 μg of G-CSF, Human (Cat. No. Z02974) was resolved with SDS-PAGE under reducing (R) and non-reducing (N) conditions and visualized by Coomassie Blue staining



Biological Activity

G-CSF, Human (Cat. No. Z02974) stimulates cell proliferation of M-NFS-60 cells. The ED_{50} for this effect is typically 20-100pg/mL.

Background

Target Background : Granulocyte Colony-Stimulating Factor (G-CSF) contains internal disulfide bonds. Among the family of colony-stimulating factors, Granulocyte Colony Stimulating Factor (G-CSF) is the most potent inducer of terminal differentiation to granulocytes and macrophages of leukemic myeloid cell lines. The synthesis of Granulocyte Colony Stimulating Factor (G-CSF) can be induced by bacterial endotoxins, TNF, Interleukin-1 and GM-CSF. Prostaglandin E2 inhibits the synthesis of Granulocyte Colony Stimulating Factor (G-CSF). In epithelial, endothelial, and fibroblastic cells secretion of Granulocyte Colony Stimulating Factor (G-CSF) is induced by Interleukin-17.

Synonyms : CSF3; C17orf33; CSF3OS; GCSF; colony stimulating factor 3; CSF-3; Granulocyte Colony-Stimulating Factor

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

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