

**Synonym**

CSF3R,CD114,GCSFR

**Source**

Human G-CSF R, Fc Tag(GCR-H5250) is expressed from human 293 cells (HEK293). It contains AA Glu 25 - Pro 621 (Accession # [NP\\_000751.1](#)).

Predicted N-terminus: Glu 25

**Molecular Characterization**

G-CSF R(Glu 25 - Pro 621) NP_000751.1	Fc(Pro 100 - Lys 330) P01857
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This protein carries a human IgG1 Fc tag at the C-terminus

The protein has a calculated MW of 92.7 kDa. The protein migrates as 100-120 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

**Endotoxin**

Less than 1.0 EU per µg by the LAL method.

**Purity**

>95% as determined by SDS-PAGE.

**Formulation**

Lyophilized from 0.22 µm filtered solution in Tris with Glycine, Arginine and NaCl, pH7.5 with trehalose as protectant.

Contact us for customized product form or formulation.

**Reconstitution**

Please see Certificate of Analysis for specific instructions.

*For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.*

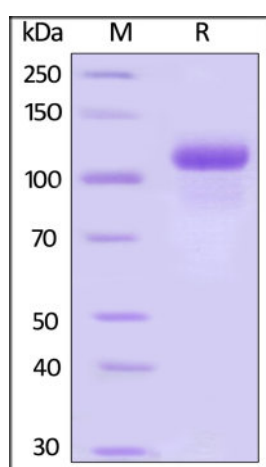
**Storage**

For long term storage, the product should be stored at lyophilized state at -20°C or lower.

*Please avoid repeated freeze-thaw cycles.*

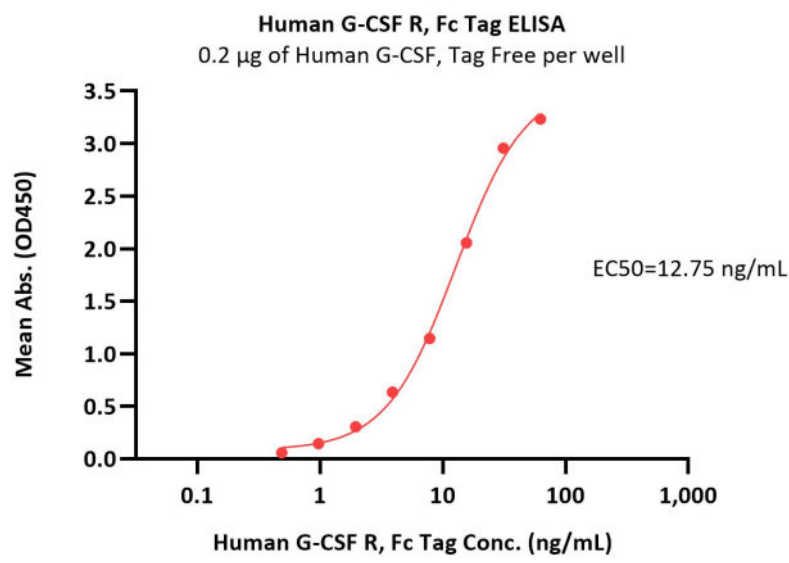
This product is stable after storage at:

- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

**SDS-PAGE**

Human G-CSF R, Fc Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95%.

**Bioactivity-ELISA**



Immobilized Human G-CSF Protein, premium grade (Cat. No. GCF-H5214) at 2 µg/mL (100 µL/well) can bind Human G-CSF R, Fc Tag (Cat. No. GCR-H5250) with a linear range of 1-16 ng/mL (QC tested).

## Background

Granulocyte Colony Stimulating Factor Receptor (G-CSFR) is also known as Cluster of Differentiation 114 (CD114), CSF3R and GCSF, is a cell-surface receptor for the granulocyte colony-stimulating factor (G-CSF), a cytokine that plays a critical role in the regulation of the activation, proliferation, differentiation, and survival of the neutrophilic granulocyte lineage. G-CSFR belongs to a family of cytokine receptors known as the hematopoietin receptor family. This type I membrane protein has a composite structure consisting of an immunoglobulin(Ig)-like domain, a cytokine receptor-homologous (CRH) domain and three fibronectin type I II (FNIII) domains in the extracellular region. G-CSFR is present mainly on precursor cells in the bone marrow, and, in response to stimulation by G-CSF, initiates cell proliferation and differentiation into mature neutrophilic granulocytes and macrophages. G-CSFR mediates the specific effect of GCSF through activating a variety of intracellular signaling cascades, including the Jak/Stat, PI3/Akt, Ras-Raf-MAP kinase, and Src family kinase pathways, and thus functions in defense against infection, inflammation and repair, and in the maintenance of steady state hematopoiesis. Mutations in this gene are a cause of Kostmann syndrome, also known as severe congenital neutropenia. Mutations in the intracellular part of this receptor are also associated with certain types of leukemia.

## Clinical and Translational Updates

Please contact us via [TechSupport@acrobiosystems.com](mailto:TechSupport@acrobiosystems.com) if you have any question on this product.