



## Synonym

CSF3R,CD114,GCSFR

## Source

Biotinylated Human G-CSF R, Avitag,His Tag(GCR-H82E4) is expressed from human 293 cells (HEK293). It contains AA Glu 25 - Pro 621 (Accession # [NP\\_000751](#)).

Predicted N-terminus: Glu 25

## Molecular Characterization

G-CSF R(Glu 25 - Pro 621) **Avi** Poly-his  
 NP\_000751

This protein carries an Avi tag (Avitag™) at the C-terminus, followed by a polyhistidine tag.

The protein has a calculated MW of 69.2 kDa. The protein migrates as 85-100 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

## Labeling

*Biotinylation of this product is performed using Avitag™ technology. Briefly, the single lysine residue in the Avitag is enzymatically labeled with biotin.*

## Protein Ratio

Passed as determined by the HABA assay / binding ELISA.

## Purity

>95% as determined by SDS-PAGE.

## Formulation

Lyophilized from 0.22 µm filtered solution in PBS, pH7.4 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

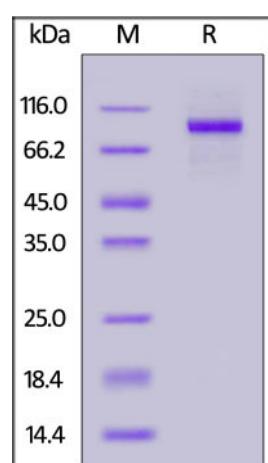
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

*Please avoid repeated freeze-thaw cycles.*

This product is stable after storage at:

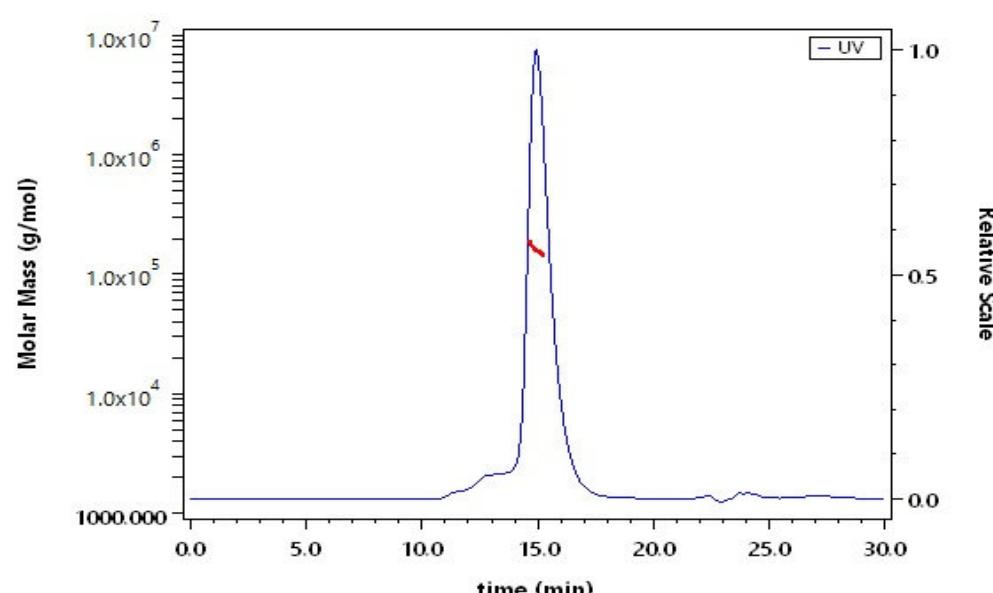
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

## SDS-PAGE



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

## SEC-MALS



The purity of Biotinylated Human G-CSF R, Avitag,His Tag (Cat. No. GCR-H82E4) is more than 85% and the molecular weight of this protein is around 148-184 kDa verified by SEC-MALS.

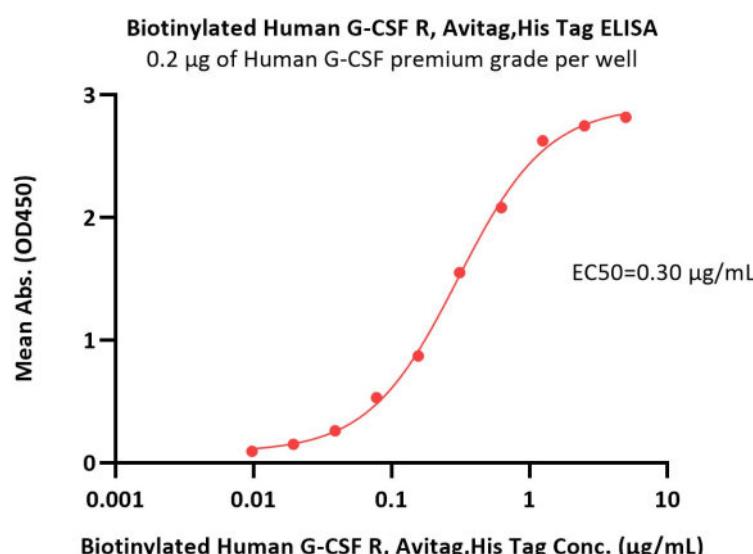
[Report](#)

## Bioactivity-ELISA

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Immobilized Human G-CSF Protein, premium grade (Cat. No. GCF-H5214) at 2 µg/mL (100 µL/well) can bind Biotinylated Human G-CSF R, Avitag,His Tag (Cat. No. GCR-H82E4) with a linear range of 0.01-0.6 µg/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.

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