

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



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.

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 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

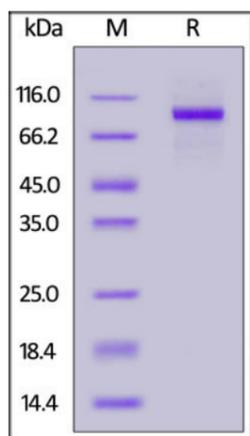
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

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.

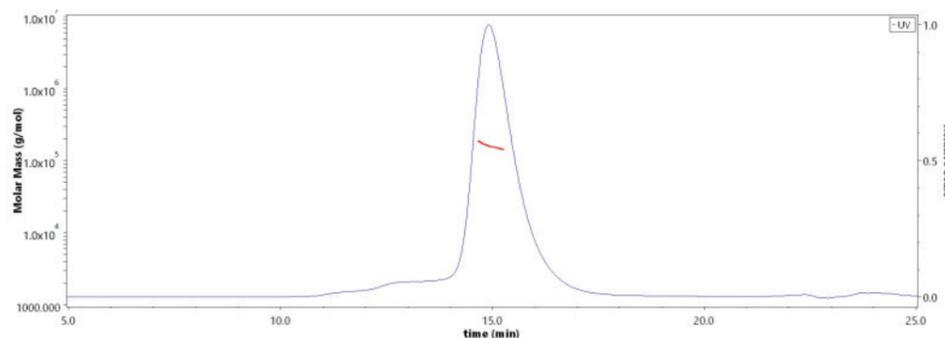
SDS-PAGE



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%.

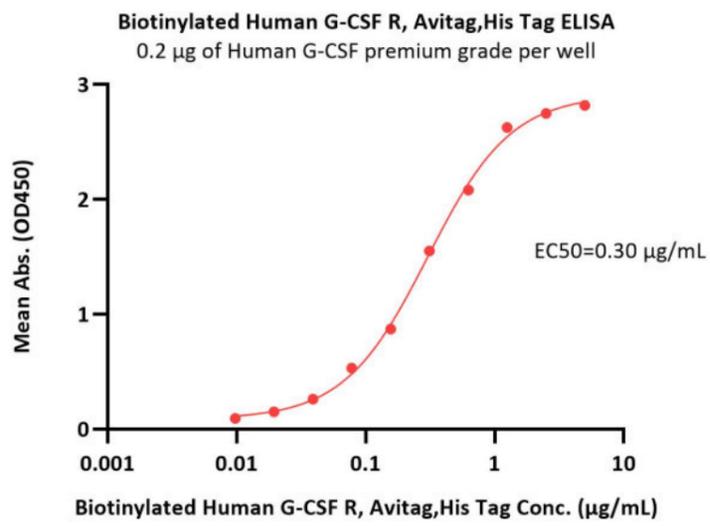
Bioactivity-ELISA

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](#)



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.

Clinical and Translational Updates

Please contact us via TechSupport@acrobiosystems.com if you have any question on this product.