

Human G-CSFR / CD114 / CSF3R Protein (Fc Tag)

Catalog Number: 10218-H02H



Sino Biological Inc.
Biological Solution Specialist

General Information

Gene Name Synonym:

CD114, GCSFR, CSF3R

Protein Construction:

A DNA sequence encoding the extracellular domain (Met 1-Pro 621) of human G-CSF receptor (NP_000751.1) precursor was expressed with the fused Fc region of human IgG1 at the C-terminus.

Source: Human

Expression Host: Human Cells

QC Testing

Purity: > 95 % as determined by SDS-PAGE

Bio-Activity

Measured by its ability to inhibit the GCSF-induced proliferation of NFS-60 mouse myeloid cells. The ED50 for this effect is typically 1-4 ng/ml in the presence of 0.125 ng/ml of recombinant human GCSF.

Endotoxin:

< 1.0 EU per µg of the protein as determined by the LAL method

Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

Predicted N terminal: Glu 25

Molecular Mass:

The mature recombinant human G-CSFR/Fc is a disulfide-linked homodimeric protein. The reduced monomer consists of 835 amino acids and predicts a molecular mass of 93.3 kDa. By SDS-PAGE under reducing conditions, the apparent molecular mass of rh GCSFR/Fc monomer is approximately 120-130 kDa due to glycosylation.

Formulation:

Lyophilized from sterile PBS, pH 7.4

Normally 5 % - 8 % trehalose and mannitol are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

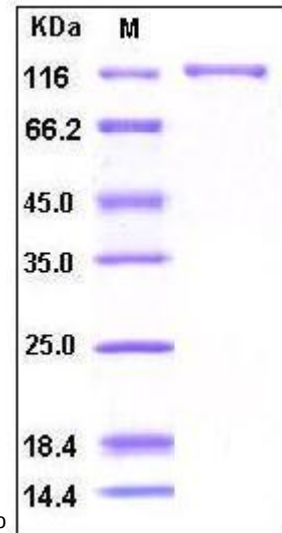
Usage Guide

Storage:

Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

SDS-PAGE:



Reconstitution:

Detailed reconstitution

h the products.

Protein Description

Granulocyte Colony Stimulating Factor Receptor (G-CSFR) which belongs to the cytokine receptor superfamily, is a cell surface receptor for colony stimulating factor 3, a cytokine that plays a critical role in the regulation of the activation, proliferation, differentiation, and survival of the neutrophilic granulocyte lineage. 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 III (FNIII) domains in the extracellular region. 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 the G-CSF receptor leading to carboxy-terminal truncation transduce hyperproliferative growth responses, and are implicated in the pathological progression of severe congenital neutropenia (SCN) to acute myelogenous leukemia (AML).

References

1. Fukunaga, R. et al., EMBO.J. 10: 2855-2865
2. Dong, F. et al., 1997, Leukemia. 11: 120-125.
3. Melissa, G. et al., 2000, Blood. 95: 2132-2137.
4. Germeshausen, M. et al., 2007, Blood. 109: 93-99.

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