Human G-CSFR / CD114 Protein (His Tag)

Catalog Number: 10218-H08H

General Information

Gene Name Synonym:
CD114; G-CSF R; GCSFR

Protein Construction:
A DNA sequence encoding the extracellular domain (Met 1-Pro 621) of human G-CSF receptor (NP_000751.1) precursor was fused with a polyhistidine tag at the C-terminus.

Source: Human

Expression Host: Human Cells

QC Testing

Purity: > 85 % as determined by SDS-PAGE

Bio Activity:
Measured by its ability to inhibit the GCSF-induced proliferation of NFS60 mouse myeloid cells. The ED50 for this effect is typically 50-250 ng/mL in the presence of 0.125ng/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 GCSFR consists of 608 amino acids and predicts a molecular mass of 68 kDa by SDS-PAGE under reducing conditions, the apparent molecular mass of rhGCSFR is approximately 92 kDa due to glycosylation.

Formulation:
Lyophilized from sterile PBS, pH 7.4

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 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.

Reconstitution:
Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:

Protein Description

Granulocyte Colony Stimulating Factor Receptor (G-CSFR), also known as CD114, which belongs to the cytokine receptor superfamily, is a cell surface receptor for colony stimulating factor 3 (CSF3). It is a critical regulator of granulopoiesis. 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. 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). Additionally, autocrine/paracrine stimulation of G-CSFR may be important in the biology of solid tumors, including metastasis.

References