



# Recombinant Protein Technical Manual

**Recombinant Human G-CSFR/CD114 Protein (Fc Tag)(Active)**  
RPES0154

## Product Data:

**Product SKU:** RPES0154

**Size:** 50µg

**Species:** Human

**Expression host:** HEK293 Cells

**Uniprot:** NP\_000751.1

## Protein Information:

**Molecular Mass:** 93.3 kDa

**AP Molecular Mass:** 12030 kDa

**Tag:** C-Fc

**Bio-activity:** Measured by its ability to inhibit GCSF-induced proliferation of NFS60 mouse myeloid cells. The ED50 for this effect is typically 2-20 ng/ml in the presence of 0.125ng/ml of recombinant human GCSF.

**Purity:** > 95 % as determined by reducing SDS-PAGE.

**Endotoxin:** < 1.0 EU per µg as determined by the LAL method.

**Storage:** Lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.

**Shipping:** This product is provided as lyophilized powder which is shipped with ice packs.

**Formulation:** Lyophilized from sterile PBS, pH 7.4

**Reconstitution:** Please refer to the printed manual for detailed information.

**Application:**

**Synonyms:** CD114;CSF3R;G-CSF R;GCSFR

## Immunogen Information:

**Sequence:** Met 1-Pro 621

## Background:

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.