

GMP Grade, Recombinant Human GM-CSF

Cat#: C-BETA016

Size: 100µg, 1mg

Source: *Escherichia coli*.

Product Information

Molecular Weight: Approximately 14 kDa, a single non-glycosylated polypeptide chain containing 143 amino acids.

Description : Accession # P04141.1, Ala18-Glu144, with an N terminal Ala.

SDS-PAGE: 14 kDa, under reducing conditions

Purity: > 95 %, as determined by SDS-PAGE, under reducing non-reducing conditions, visualized by coomassie staining.

Endotoxin: Less than 0.01 EU/µg of GM-CSF as determined by kinetic Limulus Amoebocyte Lysate (LAL) assay.

Biological Activity: Recombinant human GM-CSF bioactivity is measured by TF-1 human erythroleukemic cells, the EC50 for this effect is 0.02988 to 0.05326 ng/mL.

Physical Appearance: Sterile Filtered White lyophilized (freeze-dried) powder.

Formulation: Lyophilized from a 0.2 µm filtered concentrated solution in PBS with trehalose.

Reconstitution: We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute to a concentration of 0.1-1.0 mg/mL in **sterile distilled H₂O**. Stock solutions should be apportioned into working aliquots and stored at -20 °C to -70 °C. Further dilutions should be made in appropriate buffered solutions. **Do not reconstitute in cell culture media directly.**

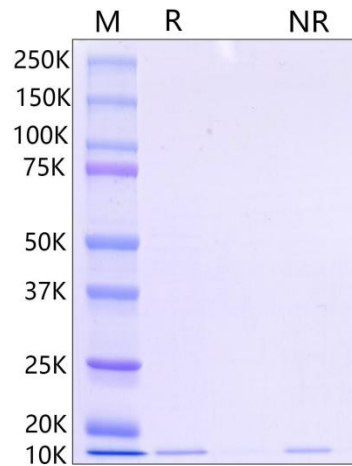
Shipping: 2°C to 8°C. Upon receipt, store it immediately at the temperature recommended below.

Stability & Storage: Use a manual defrost freezer and avoid repeated freeze-thaw cycles. A minimum of 12 months from date of shipping when stored at -20°C to -70°C as supplied. 4 weeks at 2°C to 8°C under sterile conditions after reconstitution. 4 months at -20°C to -70°C under sterile conditions after reconstitution

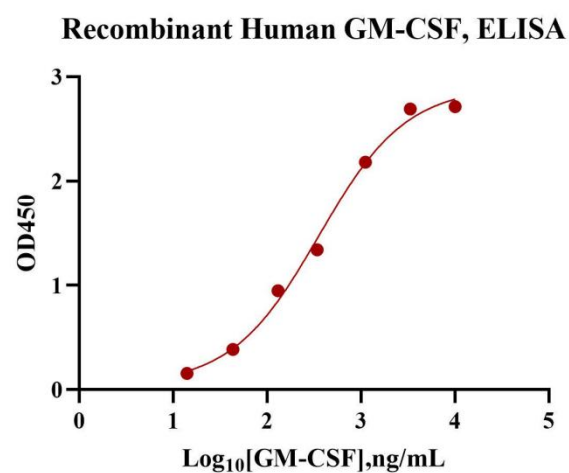
Usage: Biogradetech GM-CSF product can be used for a variety of ex vivo cell culture applications such as research or further manufacturing.

Quality statement: No animal- or human-derived materials were used for the manufacture of this product, unless otherwise stated in the respective Certificate of Origin.

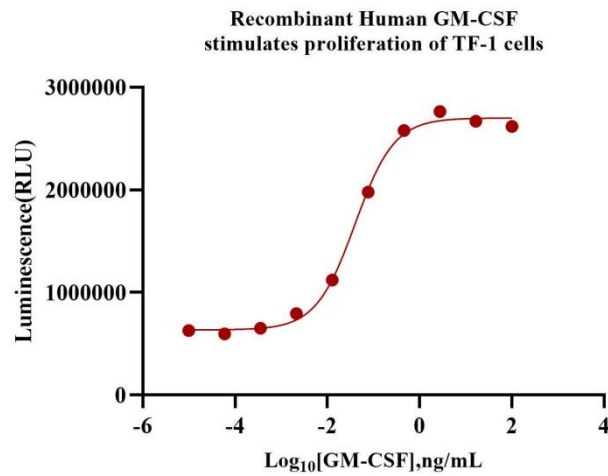
DATA



SDS-PAGE: Recombinant Human GM-CSF Protein SDS-PAGE 1 µg/lane of Recombinant Human GM-CSF(Catalog# C-BETA016) was resolved with SDS-PAGE under reducing (R) and non-reducing (NR) conditions visualized by coomassie staining showing a single band at about 14 kDa.



Bioactivity-ELISA: Immobilized Recombinant Human GM-CSF (Catalog# C-BETA016) at 0.2 µg/well can bind Human GM-CSF R alpha with a linear range of 107.2 to 823.9 ng/mL.



Bioactivity-Cell based assay: Recombinant human GM-CSF (Catalog# C-BETA016) stimulates proliferation of TF-1 human erythroleukemic cells, the EC50 for this effect is 0.02988 to 0.05326 ng/mL.

References

1. Burgess AW, Metcalf D. The nature and action of granulocyte-macrophage colony stimulating factors. *Blood*. (1980); 56:947–58.
2. Hansen G, Hercus TR, McClure BJ, Stomski FC, Dottore M, Powell J, et al.. The structure of the GM-CSF receptor complex reveals a distinct mode of cytokine receptor activation. *Cell*. (2008) 134:496–507.
3. van de Laar L, Coffey PJ, Woltman AM. Regulation of dendritic cell development by GM-CSF: molecular control and implications for immune homeostasis and therapy. *Blood*. (2012) 119:3383–93. 10.1182/blood-2011-11-370130.

Note:

The product listed herein is for research use only and is not intended for use in human or clinical diagnosis.