

GMP Grade, Recombinant Human Interleukin-4 (rHuIL-4)

Cat#: C-BETA003

Size: 100µg, 1mg

Source: *Escherichia coli*.

Product Information

Molecular Weight: Approximately 15 kDa, a single polypeptide chain containing 119 amino acids.

Description : Accession#P07750 (H23-S140), His26-Ser140, with an N terminal Met.

SDS-PAGE: 15 kDa, 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 IL-4 as determined by kinetic Limulus Amoebocyte Lysate (LAL) assay.

Biological Activity: Recombinant human IL-4 bioactivity is measured in a cell proliferation assay using TF-1 human erythroleukemic cells, the EC50 for this effect is 0.00993-0.0301 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.**

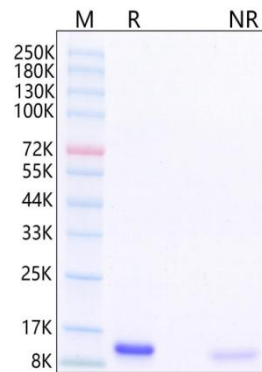
Shipping: 2°C to 8°C. Upon receipt, store it immediately at the temperature recommended below.

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 IL-4 product can be used for a variety of ex vivo cell culture applications such as research or further manufacturing.

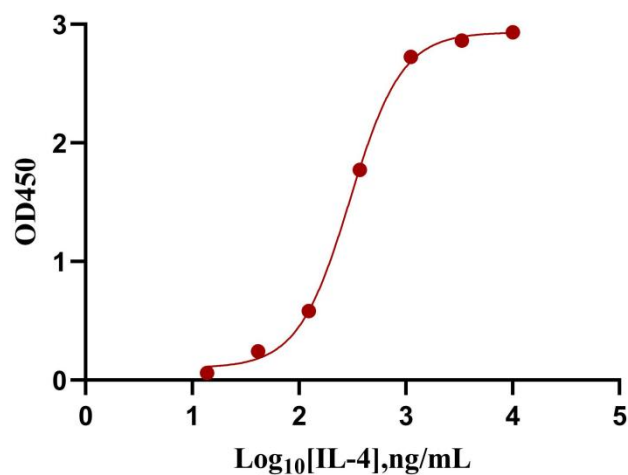
Quality statement: No animal- or human-derived materials were used for the manufacture of this product, unless otherwise stated in the respective Certificate of Origin.

DATA

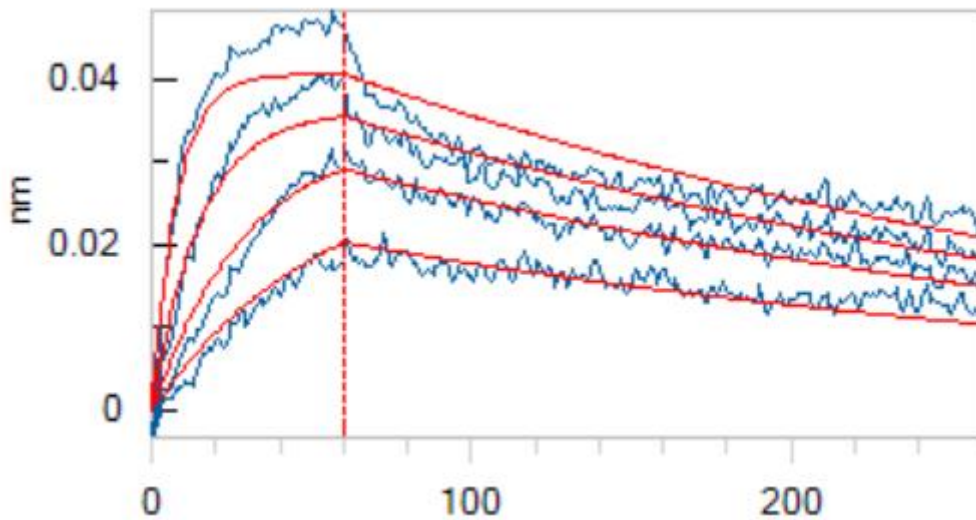


SDS-PAGE: Recombinant Human IL-4 Protein SDS-PAGE 1 µg/mL lane of Recombinant Human IL-4 Protein(Catalog# C-BETA003) was resolved with SDS- PAGE under reducing (R) and non reducing (NR) conditions visualized by coomassie staining showing a single band at 17 kDa.

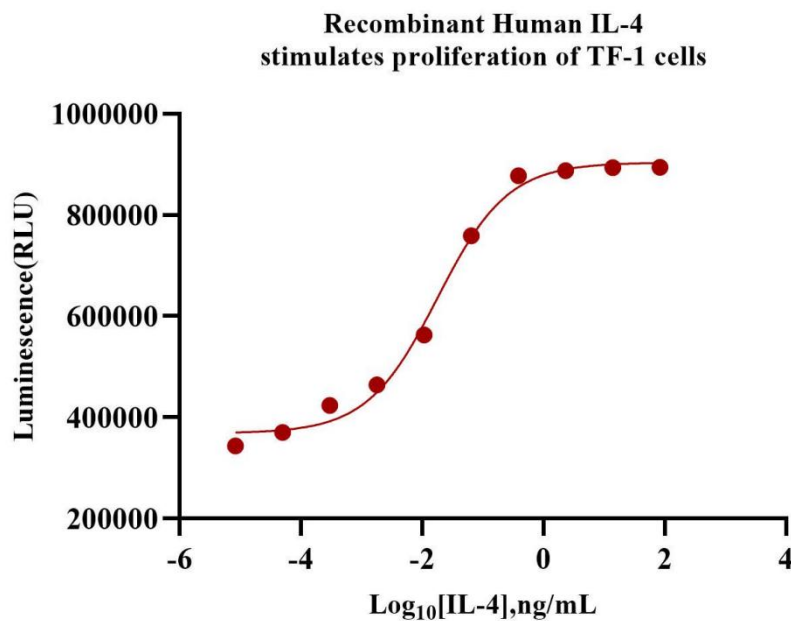
Recombinant Human IL-4, ELISA



Bioactivity-ELISA: Immobilized recombinant human IL-4 (Catalog# C-BETA003) at 0.2 µg/well can bind human IL-4 R alpha with a linear range of 275.7 to 322.7 ng/mL.



Bioactivity-BLI: Loaded Human IL-4 R alpha, can bind Recombinant Human IL-4 (Catalog# C-BETA003) with an affinity constant of 33.01 nM as determined in BLI assay (Octet® R8).



Bioactivity-Cell based assay: Recombinant Human IL-4 (Catalog# C-BETA003) stimulates proliferation of TF-1 human erythroleukemic cells. The EC₅₀ for this effect is 0.00993 to 0.0301 ng/mL.

References

1. Chomarat P, Banchereau J. An update on interleukin-4 and its receptor. *Eur Cytokine Netw.* 1997 Dec;8(4):333-44.
2. Violeta Rus, Charles S. Via, Chapter 12 - Cytokines in Systemic Lupus Erythematosus, Editor(s): George C. Tsokos, Caroline Gordon, Josef S. Smolen, *Systemic Lupus Erythematosus*, Mosby, 2007, Pages 109-120

Note:

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