

GMP Grade, Recombinant Human Interleukin-12 (rHuIL-12)

Cat#: C-BETA006

Size: 100µg, 1mg

Source: CHO-driven Recombinant Human Interleukin-12

Product Information

Molecular Weight: Approximately 59 kDa (p40-Linker-p35) , containing 523 amino acids.

Description : Accession # P29460 Human IL-12 p40 (Ile23-Ser328)&Accession # P29459 Human IL-12 p35 (Arg23-Ser219) with a N terminal Ile.

SDS-PAGE: 72 kDa, under reducing and no reducing condition.

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-12 as determined by kinetic Limulus Amoebocyte Lysate (LAL) assay.

Biological Activity: Recombinant human IL-12 bioactivity is measured in a cell proliferation assay using PHA-P-activated human peripheral blood mononuclear cell (PBMC), the EC50 for this effect is 0.003197-0.006955 ng/mL.

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

Formulation: Lyophilized from a 0.2 µm filtered 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.**

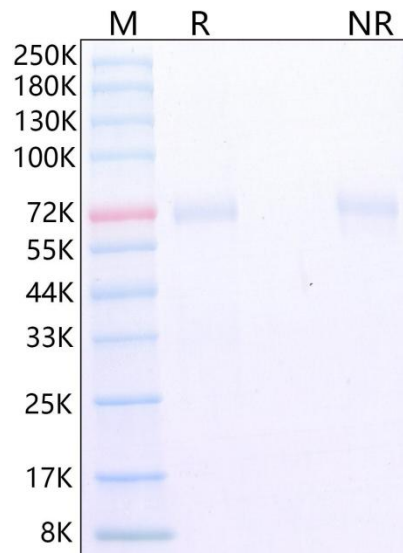
Shipping: 2°C to 8°C. Upon receipt, store it immediately at the temperature recommended below.

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-12 product can be used for a variety of ex vivo cell culture applications such as research or further manufacturing.

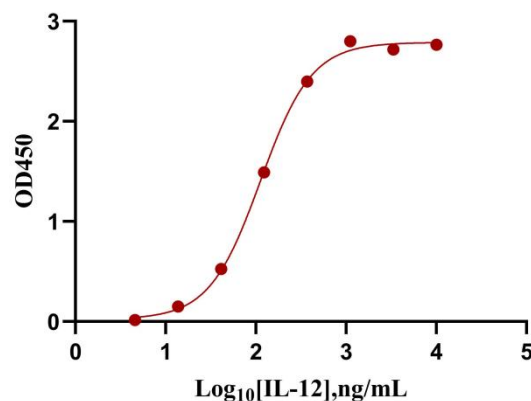
Quality statement: No animal- or human-derived materials were used for the manufacture of this product, unless otherwise stated in the respective Certificate of Origin.

DATA

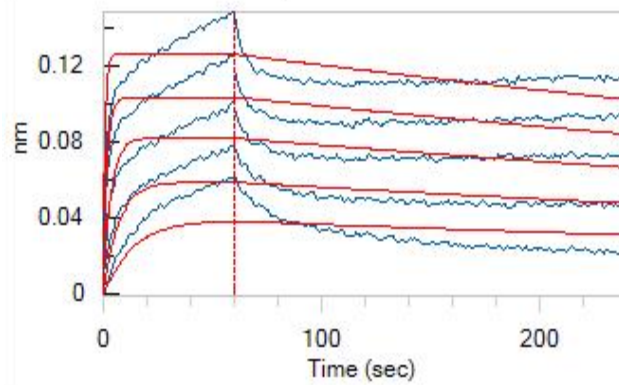


SDS-PAGE: 1 µg/lane of Recombinant Human IL-12 Protein(Catalog#C-BETA006) was resolved with SDS-PAGE under reducing (R) and non-reducing (NR) conditions visualized by coomassie staining showing a single band at 72 kDa under non-reducing conditions and reducing condition.

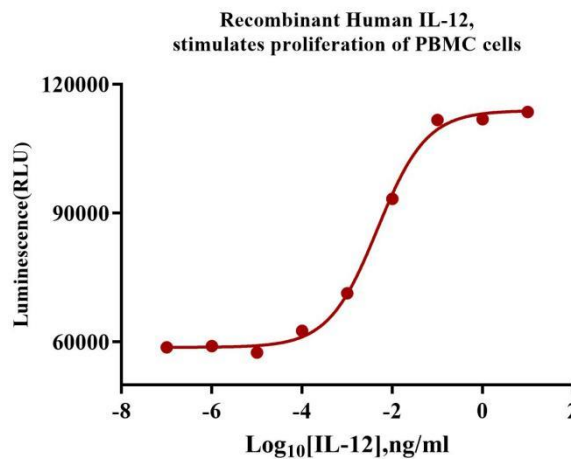
Recombinant Human IL-12, ELISA



Bioactivity-ELISA: Immobilized Recombinant human IL-12 (Catalog#C-BETA006) at 0.2 µg/well can bind human IL-12R with a linear range of 97.89 to 128.2 ng/mL.



Bioactivity-BLI: Loaded Human IL-12R can bind Recombinant Human IL-12 (Catalog# C-BETA006) with an affinity constant of 0.98 nM as determined in BLI assay (Octet®R8).



Bioactivity-Cell based assay: Recombinant Human IL-12 (Catalog#C-BETA006) stimulates proliferation of PHA-P-activated human peripheral blood mononuclear cell (PBMC). The EC₅₀ for this effect is 0.003197 to 0.006955 ng/mL.

References

1. 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.
2. Greiner JW, Morillon YM 2nd, Schlom J. NHS-IL12, a Tumor-Targeting Immunocytokine. Immunotargets Ther. 2021 May 27;10:155-169.

Note:

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