

GMP Grade, Recombinant Human Interleukin-15 (rHuIL-15)

Cat#: C-BETA007

Size: 100µg, 1mg

Source: *Escherichia coli*.

Product Information

Molecular Weight: Approximately 12.9 kDa, a single non-glycosylated polypeptide chain containing 115 amino acids.

Description : Accession # P40933.1, Asn49-Ser162, with an N terminal Met.

SDS-PAGE: 9 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-15 as determined by kinetic Limulus Amoebocyte Lysate (LAL) assay.

Biological Activity: Recombinant human IL-15 bioactivity is measured in a cell proliferation assay using CTLL-2 mouse cytotoxic T cells, the EC50 for this effect is 0.1125 to 0.1445 ng/mL.

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

Formulation: Lyophilized from a 0.2 µm filtered concentrated solution in 20 mM PBS, pH 7.5 without carrier protein or preservatives.

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.**

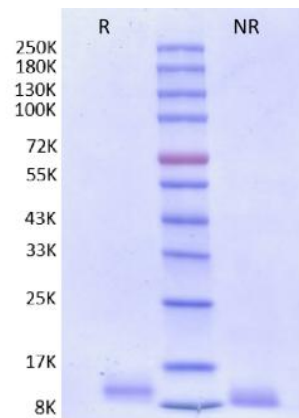
Shipping: 2°C to 8°C. Upon receipt, store it immediately at the temperature recommended below.

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

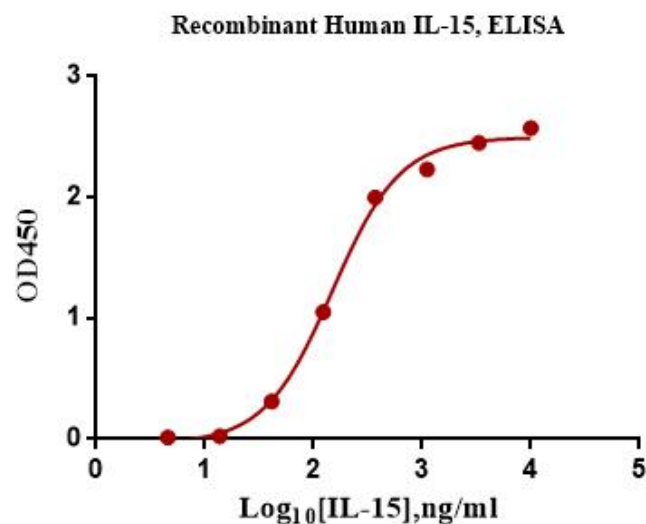
Usage: Biogradetech IL-15 product can be used for a variety of ex vivo cell culture applications such as research or further manufacturing.

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.

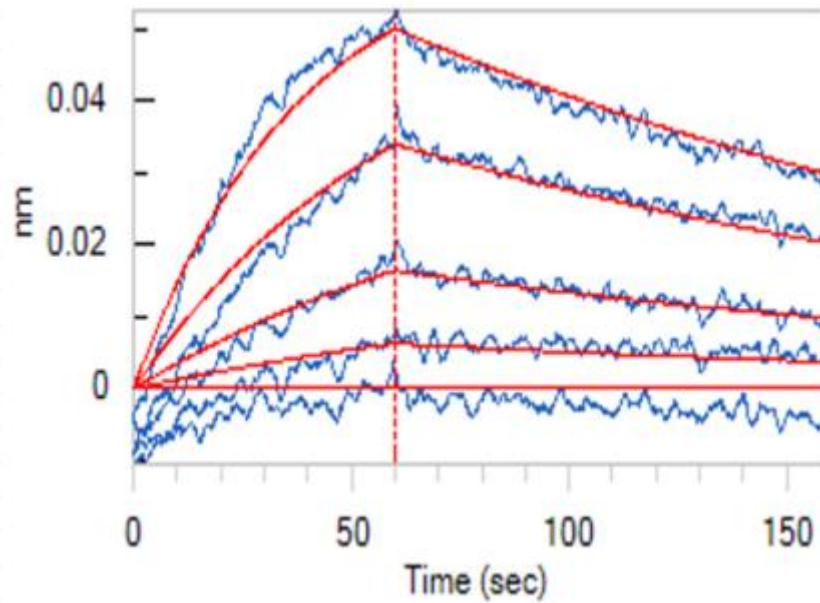
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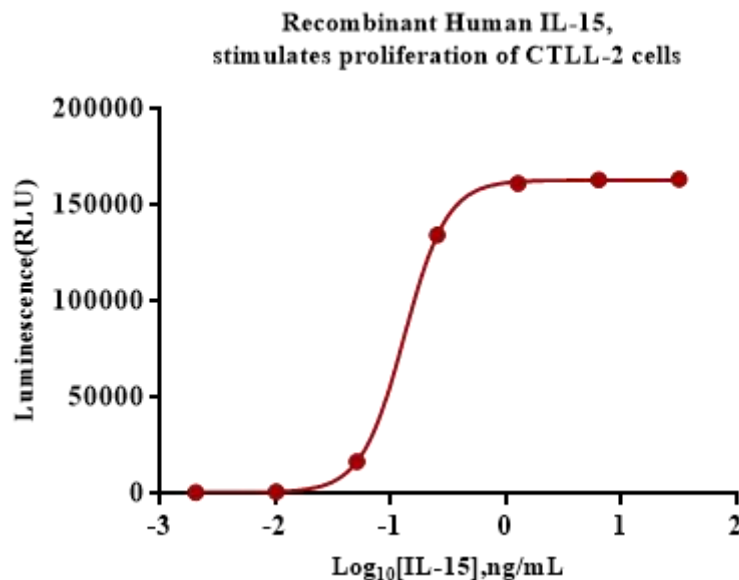
SDS-PAGE: Recombinant Human IL-15 Protein SDS-PAGE 1 µg/lane of Recombinant Human IL-15(Catalog# C-BETA007) was resolved with SDS-PAGE under reducing (R) and non-reducing (NR) conditions visualized by coomassie staining showing a single band at 9 kDa.



Bioactivity-ELISA: Immobilized Recombinant Human IL-15(Catalog# C-BETA007) at 0.2 µg/well can bind Human IL-15 R alpha with a linear range of 129.3 to 173.4 ng/mL.



Bioactivity-BLI: Loaded Human IL-15 R alpha, can bind Recombinant Human IL-15(Catalog# C-BETA007) with an affinity constant of 2.45 nM as determined in BLI assay(Octet Red96e).



Bioactivity-Cell based assay: Recombinant Human IL-15 (Catalog# C-BETA007) stimulates proliferation of CTLL-2 cells,the EC₅₀ for this effect is 0.1125 to 0.1445 ng/mL.

References

1. Patidar M, Yadav N, Dalai SK. Interleukin 15: A key cytokine for immunotherapy. Cytokine Growth Factor Rev. 2016 Oct;31:49-59.
2. Kryczek, I. et al. (2007) J. Immunol. 178:6730.
3. Thomas A. Waldmann, Interleukin-15, Reference Module in Neuroscience and Biobehavioral Psychology, Elsevier, 2017.
4. Joseph Lorenzo, Chapter 9 - The Effects of Immune Cell Products (Cytokines and Hematopoietic Cell Growth Factors) on Bone Cells, Academic Press.

Note:

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