Recombinant human IL-15

Mammalian cell-expressed human interleukin 15 (IL-15)

Cat. codes: rcyc-hil15, rcyc-hil15-5 invivogen.com/cytokines-human-il-15-recombinant-protein

> For research use only Version 25E20-AK

PRODUCT INFORMATION

Contents

Recombinant human IL-15 is provided lyophilized and is available in two quantities:

• rcyc-hil15: 10 µg

• rcyc-hil15-5: 5 x 10 µg

Note: These products are sterile filtered prior to lyophilization.

• 1.5 ml endotoxin-free water

Storage and stability

• Recombinant human IL-15 is shipped at room temperature. Upon receipt it should be immediately stored at -20 °C. Lyophilized product is stable for 12 months at -20 °C.

• Upon resuspension, prepare aliquots of recombinant human IL-15 and store at 4°C for 1 week or at -20°C to -80 °C for 12 months. Note: Avoid repeated freeze-thaw cycles.

Quality control

• Purity: ≥ 95% (SDS-PAGE)

- Endotoxin level: ≤ 0.01 EU/µg (LAL assay)
- The biological activity has been confirmed using HEK-Blue™ IL-2/

IL-15 cells (see validation data sheet available on our website).

Characteristics

- Alternative name: Interleukin-15, IL15
- Source: Mammalian; Chinese hamster ovary (CHO) cells
- Molecular mass: ~13 kDa (SDS PAGE)
- Carrier-free
- Tag-free
- UniProt ID: P40933
- Protein sequence: Asn49-Ser162

• Formulation: Recombinant human IL-15 was lyophilized from a 0.2 µm filtered 20 mM Sodium Phosphate, 150 mM NaCl, and 5% saccharose buffer solution (pH 7).

• Solubility: 100 µg/ml in water

APPLICATIONS

- Cellular assays
- Cell culture (T cell and NK cell activation and expansion)
- ELISA

PRODUCT DESCRIPTION

Interleukin 15 (IL-15) is an immunomodulating cytokine that is structurally and functionally related to IL-2. IL-15 promotes the ontogeny, activation, and survival of NK cells, NKT cells, T cells, and B cells¹. IL-15 is also implicated in in the development and progression of various hematological malignancies [1]. IL-15 is extensively being studied as an adjuvant for cancer vaccines and for its role in CAR T cell expansion². Recombinant IL-15 can be used in combination with other cytokines like IL-2 or IL-7 to increase the efficiency of lymphocyte expansion and maturation in cell culture protocols^{2,3}.

InvivoGen's recombinant human IL-15 can be used to induce its cognate signaling pathway in the IL-15 reporter cell line HEK-Blue™ IL-2/IL-15. It is tag- and carrier-free, and is produced in Chinese hamster ovary (CHO) cells. Production of recombinant proteins in mammalian cells ensures protein glycosylation and *bona fide* 3D structure.

1. Sindaco P, et al., 2023. The role of interleukin-15 in the development and treatment of hematological malignancies. Front Immunol.14:1141208. 2.Sudarsanam H, et al., 2022. Influence of Culture Conditions on EX Vivo Expansion of T Lymphocytes and Their Function for Therapy: Current Insights and Open Questions. Front Bioeng Biotechnol.;10:886637. 3. Chamucero-Millares JA, et al., 2021. Usefulness of IL-21, IL-7, and IL-15 conditioned media for expansion of antigen-specific CD8+ T cells from healthy donor-PBMCs suitable for immunotherapy. Cell Immunol.;360

METHODS

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Preparation of stock solution (100 μ g/ml):

 Add 100 µl endotoxin-free water (provided) to 10 µg of recombinant human IL-15 and mix gently by pipetting until completely resuspended.
Use immediately or prepare aliquots and store at 4°C for 1 week or at -20°C to -80 °C for 12 months. Avoid repeated freeze-thaw cycles.
Further dilutions can be prepared in the appropriate aqueous buffer, such as cell culture medium containing serum.

RELATED PRODUCTS

Product	Cat. Code
IEK-Blue™ IL-2/IL-15 cells	hkb-il2
HEK-Blue™ CD122/CD132 Cells	hkb-il2bg
osAb CD3-CD28 for T cell expansion	bsab-tex-1
Recombinant human IL-2	rcyc-hil2
Recombinant human IL-7	rcyc-hil7

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