

CHASELECTION Recombinant Human Interleukin-15 Pro/IL-15 Pro

Catalog Number: CYG018F0XXX/CY018F0XXX

Basic information:

Source: E.coli

Formulation: PBS trehalose, mannitol, pH 7.4

Purity:

≥95 % as determined by SDS-PAGE & HPLC.

SDS-PAGE:



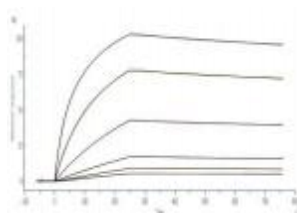
Non reducing and reducing SDS-PAGE showed a protein molecular weight of about 15kDa, and no foreign heteroproteins were found

Endotoxin: < 0.1 EU/μg

Features:

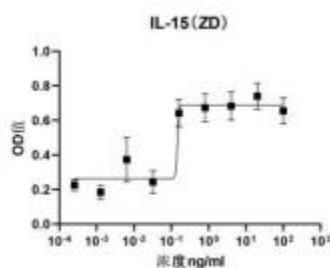
1. IL-15 Pro has strong affinity

1.1 Bioactivity-SPR



Human CD122(IL-15R-beta) can bind with IL-15-pro with an affinity constant of 0.51nM as determined in a SPR

1.2 Bioactivity-Cell based assay(CTLL-2 cell)



Determined by its ability to stimulate the proliferation of mouse CTLL-2 cells. The expected ED₅₀ is ≤0.1ng/ml, corresponding to a specific activity of ≥ 1 x 10⁷ units/mg

Reconstitution:

1. Before opening, please briefly centrifuge the contents to the bottom;
2. It is recommended to initially dissolve in sterile deionized water to an appropriate concentration (recommended concentration is 0.2-1mg/ml);
- 3.If further dilution is required, it is recommended to dilute the solution with a solution containing carrier proteins (such as 0.1% BSA, 10% FBS, and 5% HSA).

Shipping & Storage:

The product is shipped with blue ice.

If long-term storage is required, this product should be stored at ≤ -20 °C

Please avoid repeated freeze-thaw cycles

1. Dry powder can be stored at ≤ -20 °C for at least 24 months;
2. After reconstitution, it can be stored for 1 month under sterile conditions at 2-8 °C ;
3. After reconstitution, it can be stored for 12 months under sterile conditions at -20~-70 °C.

Introduction:

Interleukin-15 (IL-15) is a cytokine with immune regulatory function, mainly secreted by immune cells such as acrophages and monocytes. IL-15, as a multifunctional cytokine, has similar effects to IL-2, such as promoting the proliferation of NK cells, B lymphocytes, and T lymphocytes and maintaining these immune cell functions. At the same time, IL-15 can induce NK cell and T cell development, proliferation, and activation at low doses of exogenous addition. When enhancing the anti-tumor or pathogen resistant function of CD⁸⁺ T cells, there is no significant toxic side effect. Moreover, in terms of anti-tumor function, the NK induced killing activity is 3-4 times higher than IL-2. In the treatment of solid tumors, it is also an effective candidate factor for inhibiting the growth of broad-spectrum solid tumors that are resistant to IL-2. The wild-type IL-15 needs to rely on Sushi domain to perform its functions. The activity of Chaselection hIL-15Pro is more than 20 times higher than that of wild-type IL-15 without relying on Sushi-domain. At the same time, its high stability solves the problem of IL-15 easily forming inactive isomers.