Recombinant Human Interleukin 15

Catalog Number	Size
AG131-10	10μg
AG131-100	100μg

Specifications and Use

Description Recombinant human IL-15 produced in E.coli is a single, non-glycosylated, polypeptide chain containing 114 amino acids.

Source *E coli*

Molecular Mass Approximately 12.7kDa.

Purity ≥97%, as determined by SDS-PAGE and HPLC method.

Endotoxin Level ≤1EU/μg, determined by the LAL method.

Biological Activity Measured in a cell proliferation assay using CTLL-2. The specific activity shall be not less than 5 x 10^7 IU/mg.

Formulation Lyophilized from a 0.2μm filtered solution in PBS containing 0.1% HSA, pH7.4.

Reconstitution It is recommended that sterile PBS containing at least 0.1% human serum albumin or bovine serum albumin be added to the vial to prepare a stock solution of not less than 100μg/ml.

Storage Lyophilized samples are stable for greater than six months from date of receipt at -20°C to -70°C.
The reconstituted samples can be stored under sterile conditions at 2- 8°C for one month or at -20°C to -70°C for three months without detectable loss of activity.
Avoid repeated freeze-thaw cycles.

Human Interleukin 15

Interleukin 15 (IL-15) is a widely expressed cytokine that is structurally and functionally related to IL-2. Mature human IL--15 shares 70% amino acid sequence identity with mouse and rat IL-15. Alternative splicing generates isoforms of IL-15 with either a long or short signal peptide (LSP or SSP), and the SSP isoform is retained intracellularly. IL-15 binds with high affinity to IL-15Rα and with lower affinity to a complex of IL-2Rβ and the common gamma chain (γc) which are also subunits of the IL-2 receptor complex. IL-15 associates with IL-15Rα in the endoplasmic reticulum. The dominant mechanism of IL-15 action is known as transpresentation in which IL-15 and IL-15Rα are coordinately expressed on the surface of one cell and interact with the complexes of IL-2Rβ /γc on adjacent cells. This enables cells to respond to IL-15 even if they do not express IL-15Rα. Consistent with its shared use of IL-2 receptor subunits, IL-15 induces IL-2-like effect in lymphocyte development and homeostasis. It is particularly important for the maintenance and activation of NK cells and CD8+ memory T cells. Ligation of membrane-associated IL-15/IL-15Rα complexes induces reverse signaling that promotes cellular adhesion, tyrosine phosphorylation of intracellular proteins, and cytokine secretion by the IL-15/IL-15Rα expressing cells.
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