Recombinant Human Interleukin-15/IL-15 Protein

Catalog Number: PKSH033630



| Description | | |
|----------------|---|--|
| Species | Human | |
| Mol_Mass | 13.7 kDa | |
| Accession | P40933 | |
| Bio-activity | Measure by its ability to induce proliferation in CTLL-2 cells. The ED_{50} for this effect | |
| | is < 3 ng/mL. The specific activity of recombinant human IL-15 is > 2 x 10^6 IU/mg. | |
| Properties | | |
| Purity | > 95 % as determined by reducing SDS-PAGE. | |
| Endotoxin | < 0.01 EU per µg of the protein as determined by the LAL method. | |
| Storage | Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80 | |
| | °C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of | |
| | reconstituted samples are stable at $< -20^{\circ}$ C for 3 months. | |
| Shipping | This product is provided as lyophilized powder which is shipped with ice packs. | |
| Formulation | Lyophilized from sterile PBS,pH 8.0. | |
| | Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants | |
| | before lyophilization. | |
| | Please refer to the specific buffer information in the printed manual. | |
| Reconstitution | Please refer to the printed manual for detailed information. | |
| Data | | |

Note: Centrifuge before opening to ensure complete recovery of vial contents.

| kDa 120 90 60 40 | MK | R |
|------------------------------|----|---|
| 30 | - | |
| 20 | - | |
| 14 | - | - |

> 95 % as determined by reducing SDS-PAGE.

Background

Human Interleukin 15 (IL-15) is a cytokine that regulates T cell and natural killer cell activation and proliferation. IL-15 binds to the alpha subunit of the IL15 receptor (IL-15RA) with high affinity. IL-15 also binds to the beta and gamma chains of the IL-2 receptor, but not the alpha subunit of the IL2 receptor. IL-15 is structurally and functionally related to IL-2. Both cytokines share some subunits of receptors, allowing them to compete for and negatively regulate each othe r's activity. The number of CD8+ memory T cells is controlled by a balance between IL-15 and IL-2. Despite their many overlapping functional properties, IL-2 and IL-15 are, in fact, quite distinct players in the immune system. IL-15 is constitutively expressed by a wide variety of cell types and tissues, including monocytes, macrophages and DCs. Mature Human IL-15 shares 70% amino acid sequence identity with Mouse and Rat IL-15.

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