

DESCRIPTION

Source *Spodoptera frugiperda*, Sf 21 (baculovirus)-derived
Ala27-Asp239
Accession # NP_000869

N-terminal Sequence Analysis Ala27

Predicted Molecular Mass 25 kDa

SPECIFICATIONS

SDS-PAGE 29 kDa and 31 kDa, reducing conditions

Activity Measured by its ability to inhibit the IL-15-dependent proliferation of MO7e human megakaryocytic leukemic cells. The ED₅₀ for this effect is 1.0-3.0 μ g/mL in the presence of 4.0 ng/mL of recombinant human IL-15.

Endotoxin Level <0.10 EU per 1 μ g of the protein by the LAL method.

Purity >97%, by SDS-PAGE under reducing conditions and visualized by silver stain.

Formulation Lyophilized from a 0.2 μ m filtered solution in PBS with BSA as a carrier protein. See Certificate of Analysis for details.

PREPARATION AND STORAGE

Reconstitution Reconstitute at 50 μ g/mL in sterile PBS containing at least 0.1% human or bovine serum albumin.

Shipping The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.

Stability & Storage Use a manual defrost freezer and avoid repeated freeze-thaw cycles.

- 12 months from date of receipt, -20 to -70 °C as supplied.
- 1 month, 2 to 8 °C under sterile conditions after reconstitution.
- 3 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

Functional IL-2 receptors can exist in two affinity states on cell surfaces, the high affinity complex consisting of heterotrimers of the α , β , and γ chains, and the intermediate affinity complex comprising heterodimers of the β and γ chains. Individual β chains and α chains exhibit low affinity IL-2 binding and the γ chain alone does not bind IL-2. In addition to their involvement in IL-2 mediated signal transduction, both the β chain and γ chain have been shown to be required for IL-15 mediated signaling.

IL-2 R β is a member of the cytokine receptor superfamily. Human IL-2 R β cDNA encodes a 551 amino acid residue precursor Type I membrane protein with a 26 residue signal peptide, a 214 residue extracellular region, a 25 residue transmembrane region and a 286 residue cytoplasmic domain. A soluble IL-2 R β (IL-2 sR β) has been identified in the culture supernatants of a human lymphoid cell line, YT, that displays IL-2 R β . At present, the function of IL-2 sR β is unclear. Recombinant human IL-2 sR β binds IL-2 with low affinity and is not an effective IL-2 antagonist on cells displaying the high or intermediate affinity IL-2 signaling receptors. Nevertheless, IL-2 sR β binds IL-15 with sufficient affinity to neutralize IL-15 biological activities.