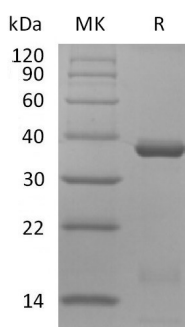


Summary

Name	IL-15RA&IL-15 Complex/IL-15 R alpha & IL-15 Fusion Protein/IL15RA&IL15
Purity	Greater than 95% as determined by reducing SDS-PAGE
Endotoxin level	<1 EU/μg as determined by LAL test.
Construction	Recombinant Human Interleukin-15 Receptor Alpha & Interleukin-15 Fusion Protein Complex is produced by our Mammalian expression system and the target gene encoding Ile31-Asp96&Asn49-Ser162 (Asn120Asp) is expressed with a human IgG1 Fc tag at the C-terminus.
Accession #	Q13261&P40933
Host	Human Cells
Species	Human
Predicted Molecular Mass	34.4&12.8 KDa
Formulation	Lyophilized from a 0.2 μm filtered solution of PBS, 5% Trehalose, pH 7.4.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature listed below.
Stability&Storage	Lyophilized protein should be stored at ≤ -20°C, stable for one year after receipt. Reconstituted protein solution can be stored at 2-8°C for 2-7 days. Aliquots of reconstituted samples are stable at ≤ -20°C for 3 months.
Reconstitution	Always centrifuge tubes before opening. Do not mix by vortex or pipetting. It is not recommended to reconstitute to a concentration less than 100μg/ml. Dissolve the lyophilized protein in distilled water. Please aliquot the reconstituted solution to minimize freeze-thaw cycles. Always centrifuge tubes before opening. Do not mix by vortex or pipetting. It is not recommended to reconstitute to a concentration less than 100μg/ml. Dissolve the lyophilized protein in distilled water. Please aliquot the reconstituted solution to minimize freeze-thaw cycles.

SDS-PAGE image



Background

Alternative Names

IL-15 Receptor alpha & IL-15 Fusion Protein; IL15RA&IL15; IL15RA&IL15 Complex; Interleukin-15; IL-15; IL15

Background

IL15RA is a high-affinity receptor for interleukin-15. IL15ra associates as a heterotrimer with the IL-2 receptor beta and gamma subunits to initiate signal transduction. It can signal both in cis and trans where IL15R from one subset of cells presents IL15 to neighboring IL2RG-expressing cells. IL15ra is expressed in special cells including a wide variety of T and B cells and non-lymphoid cells. 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 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 others 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. The enhanced activity of the IL-15N72D:IL-15R α Su/Fc complex is likely the result of the increased binding activity of IL-15N72D to IL-15R $\beta\gamma$ c , optimized cytokine trans-presentation by the IL-15R α Su domain, the dimeric nature of the cytokine domain and its increased in vivo half-life compared to IL-15. These findings indicate that this IL-15 superagonist complex could serve as a superior immunostimulatory therapeutic agent.

Note

For Research Use Only , Not for Diagnostic Use.