Recombinant Human IL-15 Protein

Catalog Number: TL-202

Product name	
Generic names	Recombinant Human IL-15 Protein
Gene Name Synonym	IL-15, Interleukin 15 Protein

Product information	
Construction	A DNA sequence encoding the extracellular domain of human IL-15 (NP_000576.1) was expressed with the C-terminal fused Fc region of human IgG1.
Source	Human
Expression Host	CHO cells
QC Testing Purity	> 95 % as determined by SDS-PAGE
Bio Activity	The ED_{50} as determined by the dose-dependent stimulation of the proliferation of CTLL-2 cells was found to be ≤ 0.5 ng/ml, corresponding to a specific activity of ≥ 2×10^6 units/mg..
Endotoxin	< 0.01EU per mg of the protein as determined by the LAL method.
Molecular Mass	The recombinant human IL-15 consists of 362 amino acids and predicts a molecular mass of 45 kDa.
Formulation	Lyophilized from sterile PBS, pH 7.4. Normally 6 % - 8 % trehalose, mannitol are added as protectants before lyophilization.
Stability & Storage	Samples are stable for up to 24 months from date of receipt at 4 ℃ . Recommend to aliquot the protein into smaller quantities for optimal storage. Avoid repeated freeze-thaw cycles.

Background

The protein encoded by IL-15 gene is a cytokine that regulates T and natural killer cell activation and proliferation. This cytokine and interleukine 2 share many biological activities. They are found to bind common hematopoietin receptor subunits, and may compete for the same receptor, and thus negatively regulate each other's activity. The number of CD8+ memory cells is shown to be controlled by a balance between IL-15 and IL2. IL-15 induces the activation of JAK kinases, as well as the phosphorylation and activation of transcription activators STAT3, STAT5, and STAT6. Studies of the mouse counterpart suggested that IL-15 may increase the expression of apoptosis inhibitor BCL2L1/BCL-x(L), possibly through the transcription activation activity of STAT6, and thus prevent apoptosis. Alternatively spliced transcript variants of this gene have been reported.

References

1.Mongini PKA, Gupta R, Boyle E, et al. TLR-9 and IL-15 synergy promotes the in vitro clonal expansion of chronic lymphocytic leukemia B cells. Journal of immunology (Baltimore, Md?: 1950). 2015;195(3):901-923.