

Overview

Synonyms	IL-15, MGC9721
Description	Interleukin 15 (IL-15) is a cytokine that possesses a variety of biological functions. Interleukin 15 (IL-15) stimulates the proliferation of T-lymphocytes, which requires interaction of IL-15 with components of IL-2R, including IL-2R and probably IL-2R gamma, but not IL-2R. Recombinant human Interleukin 15 (IL-15) produced in <i>E. coli</i> is a single, non-glycosylated polypeptide chain containing 114 amino acids and having a molecular mass of 12.5 kD.
Species	Human
Source	<i>E. coli</i>
Biological Activity	The ED ₅₀ as determined by the dose-dependant stimulation of the proliferation of CTLL-2 was found to be < 0.5 ng/ml, corresponding to a specific activity of > 2x10 ⁶ IU/mg.
Sequence	NWV NVISDLKKIE DLIQSMHIDA TLYTESDVHP SCKVTAMKCF LLELQVISLE SGDASIHDTV ENLIILANNS LSSNGNVTES GCKECEELEE KNIKEFLQSF VHIVQMFINT S

Properties

Measured Molecular Weight	12.5 kD
Purity	> 95% by SDS-PAGE and HPLC analyses.
Dimers	Less than 1% as determined by silver-stained SDS-PAGE gel analysis
Formulation	Recombinant human Interleukin-15 (IL-15) was lyophilized after extensive dialysis against 20mM PB, pH7.5, 150mM NaCl buffer.
Reconstitution	It is recommended to reconstitute the lyophilized Recombinant Human Interleukin 15 (IL-15) in sterile 18 MΩ-cm H ₂ O not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.
Quantitation	Protein quantitation was carried out by two independent methods: 1. UV spectroscopy at 280 nm using the absorbency value of 0.55 as the extinction coefficient for a 0.1% (1 mg/ml) solution. This value is calculated by the PC GENE computer analysis program of protein sequences (IntelliGenetics). 2. Analysis by RP-HPLC, using a calibrated solution of IL-15 as a Reference Standard.
Endotoxin Level	Less than 0.1 ng/µg (1 EU/µg) of recombinant human Interleukin-15 (IL-15) as determined by LAL test.
Sequence Analysis	The sequence of the first five N-terminal amino acids was determined and was found to be Asn-Trp-Val-Asn-Val.
QC	Less than 1% as determined by silver-stained SDS-PAGE gel analysis.
Storage	Lyophilized recombinant human Interleukin 15 (IL-15) remains stable at room temperature for three weeks, but it is best stored desiccated below -18°C. Upon reconstitution recombinant human Interleukin 15 (IL-15) should be stored at 4°C for up to seven days. For long term storage it is recommended that a carrier protein (0.1% HSA or BSA) be added. Avoid repeated freeze-thaw cycles.
Note	For in vitro use only

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