

Recombinant Rat Interleukin-IL-12 (rr IL-12)

Synonyms: NKSF, CTL maturation factor (TCMF), Cytotoxic lymphocyte maturation factor (CLMF), TSF, Edodekin-alpha.

Introduction: IL-12 is a heterodimeric cytokine that stimulates the production of Interferon gamma from T-cells and natural killer cells and also induces differentiation of Th1 helper cells. It is an initiator of cell-mediated immunity.

Description: Recombinant Rat IL-12 produced in Sf9 insect cells is a glycosylated disulfide linked heterodimeric polypeptide containing 503 amino acids and having a molecular weight of 70kDa comprised of disulfide-bonded 35kDa(p35) and 40kDa(p40) subunits. The rr IL-12 is purified by proprietary chromatographic techniques.

Source: *Baculovirus*

Physical Appearance: Sterile filtered white lyophilized (freeze-dried) powder.

Formulation: Lyophilized with no additives.

The aliquotes of 1 µg and 2 µg contain Trehalose 5% (w/vol) for better recovery

Solubility: It is recommended to reconstitute the lyophilized rr IL-12 in sterile 18MΩ-cm H₂O not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

Stability: Lyophilized rr IL-12 although stable at room temperature for 3 weeks, should be stored desiccated below -18° C. Upon reconstitution rr IL-12 should be stored at 4° C between 2-7 days and for future use below -18° C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

Purity: Greater than 95% as determined by SDS-PAGE

Amino Acid Sequence: The sequence of the first five N-terminal amino acids was determined and found to be Arg-Val-Ile-Pro-Val at the p35 subunit and Met-Thr-Glu-Leu-Glu at the p40 subunit.

Biological Activity: ED50 range = 0.01-0.05 ng/mL as determined by the dose dependent secretion of interferon-gamma from PHA and IL-2 activated mouse splenocytes that have been costimulated with PMA. Optimal concentration for individual application should be determined by a dose response assay.

This material is offered for **research only**. Not for use in human. For in vitro use only. ImmunoTools will not be held responsible for patent infringement or other violations that may occur with the use of our products.

<i>small</i>	2 µg	Cat.N°	13340122
<i>medium</i>	10 µg	Cat.N°	13340123
<i>large</i>	50 µg	Cat.N°	13340125

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