

Recombinant Rat Interleukin-12 (IL-12 Rat)

Source: Baculovirus

Catalog No.: CYT-390

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 :

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

Synonyms:

NKSF, CTL maturation factor (TCMF), Cytotoxic lymphocyte maturation factor (CLMF), TSF, Edodekin-alpha, IL-12.

Physical Appearance:

Sterile Filtered White lyophilized (freeze-dried) powder.

Formulation:

The protein (1mg/ml) was lyophilized with no additives.

Solubility:

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

Stability:

Lyophilized Interleukin-12 although stable at room temperature for 3 weeks, should be stored desiccated below -18⁰C. Upon reconstitution IL12 should be stored at 4⁰C between 2-7 days and for future use below -18⁰C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please avoid freeze-thaw cycles.

Purity:

Greater than 95.8% as determined by:

- (a) Analysis by RP-HPLC.
- (c) Analysis 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:

The ED50 was determined by the stimulation of IFN-gamma production by murine splenocytes co-stimulated with IL-12 and was found to be < 0.1ng/ml, corresponding to a specific activity of >1 x 10⁷.

Usage:

Product is furnished for LABORATORY RESEARCH USE ONLY. The product may not be used as drugs, agricultural or pesticidal products, food additives or household chemicals.

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