

Rev04  
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**DATASHEET**

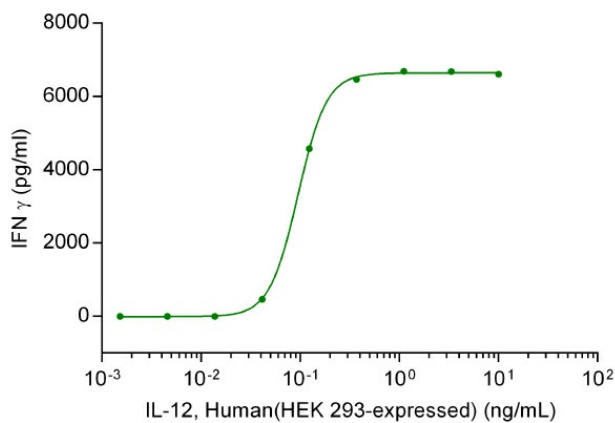
# IL-12, Human(HEK 293-expressed)

Cat. No.: Z03023

## Product Introduction

<b>Species</b>	Human
<b>Protein Construction</b>	<div style="background-color: #0056b3; color: white; padding: 5px; text-align: center;">IL-12 p35 (Arg23-Ser219) Accession # P29459</div> <div style="background-color: #0056b3; color: white; padding: 5px; text-align: center;">IL-12 p40 (Ile23-Ser328) Accession # P29460</div>
<b>Purity</b>	> 95% as analyzed by SDS-PAGE > 95% as analyzed by HPLC
<b>Endotoxin Level</b>	< 0.2 EU/μg of protein by gel clotting method
<b>Biological Activity</b>	ED <sub>50</sub> < 2.0 ng/ml, measured by the induction of IFN-γ from NK cells, corresponding to a specific activity of > 5.0 × 10 <sup>5</sup> units/mg.
<b>Expression System</b>	HEK 293
<b>Theoretical Molecular Weight</b>	75 kDa
<b>Formulation</b>	Lyophilized after extensive dialysis against PBS.
<b>Reconstitution</b>	It is recommended that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute the lyophilized powder in ddH <sub>2</sub> O or PBS up to 100 μg/ml.
<b>Storage &amp; Stability</b>	Upon receiving, this product remains stable for up to 6 months at lower than -70°C. Upon reconstitution, the product should be stable for up to 1 week at 4°C or up to 3 months at -20°C. For long term storage it is recommended that a carrier protein (example 0.1% BSA) be added. Avoid repeated freeze-thaw cycles.

## Examples



ED<sub>50</sub> < 2 ng/ml, measured by the induction of IFN-γ from NK cells co-stimulated with IL-2, corresponding to a specific activity of > 5 × 10<sup>5</sup> units/mg.

## Background

**Target Background :** Interleukin 12 (IL-12), also known as natural killer cell stimulatory factor (NKSF) or cytotoxic lymphocyte maturation factor (CLMF), is a pleiotropic cytokine originally identified in the medium of activated human B lymphoblastoid cell lines. The p40 subunit of IL-12 has been shown to have extensive amino acid sequence homology to the extracellular domain of the human IL-6 receptor while the p35 subunit shows distant but significant sequence similarity to IL-6, G-CSF, and chicken MGF. These observations have led to the suggestion that IL-12 might have evolved from a cytokine/soluble receptor complex. Human and mouse IL-12 share 70% and 60% amino acid sequence homology in their p40 and p35 subunits, respectively. IL-12 apparently shows species specificity with human IL-12 reportedly showing minimal activity in the mouse system.

**Synonyms :** IL12; NKSF; TCMF; CLMF; TSF; CTL maturation factor; Cytotoxic lymphocyte maturation factor

**For laboratory research use only. Direct human use, including taking orally and injection and clinical use are forbidden.**