

Rev03  
Update: Dec,14,2021

**DATASHEET**

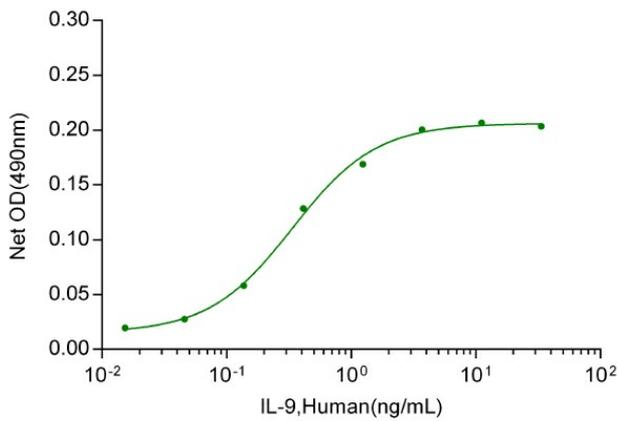
# IL-9, Human

Cat. No.: Z03013

## Product Introduction

<b>Species</b>	Human
<b>Protein Construction</b>	<b>IL-9 (Gln19-Ile144)</b> Accession # P15248
<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> < 1.0 ng/ml, measured in a cell proliferation assay using MO7e cells, corresponding to a specific activity of > 1.0 × 10 <sup>6</sup> units/mg.
<b>Expression System</b>	CHO
<b>Apparent Molecular Weight</b>	25~40 kDa, on SDS-PAGE under non-reducing conditions.
<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> < 1 ng/ml, measured in a cell proliferation assay using MO7e cells, corresponding to a specific activity of > 1 × 10<sup>6</sup> units/mg.

## Background

**Target Background :** Interleukin 9, also known as IL9, is a cytokine (cell signalling molecule) belonging to the group of interleukins. The protein encoded by this gene is a cytokine produced by T-cells and specifically by CD4<sup>+</sup> helper cells that acts as a regulator of a variety of hematopoietic cells. This cytokine stimulates cell proliferation and prevents apoptosis. It functions through the interleukin-9 receptor (IL9R), which activates different signal transducer and activator (STAT) proteins and thus connects this cytokine to various biological processes. The gene encoding this cytokine has been identified as a candidate gene for asthma. Genetic studies on a mouse model of asthma demonstrated that this cytokine is a determining factor in the pathogenesis of bronchial hyperresponsiveness.

**Synonyms :** IL9; p40 cytokine; T-cell growth factor p40; interleukin-9

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