

**Recombinant Human IL-4 (Mammalian)****Catalog No.: RP0033****Basic Information****Information**

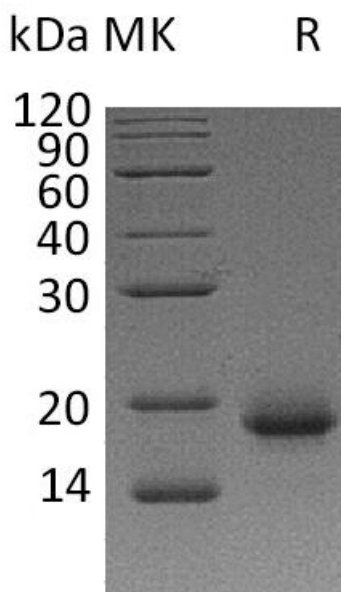
<b>Source</b>	<i>Human Cells</i>
<b>Description</b>	Recombinant Human Interleukin-4 is produced by our Mammalian expression system and the target gene encoding His25-Ser153 is expressed.
<b>Accession</b>	P05112
<b>Known As</b>	Interleukin-4; IL-4; B-Cell Stimulatory Factor 1; BSF-1; Binetrakin; Lymphocyte Stimulatory Factor 1; Pitrakinra; IL4
<b>Predicted Mol Mass</b>	14.97 KDa
<b>Apparent Mol Mass</b>	18 KDa, reducing conditions

**Properties**

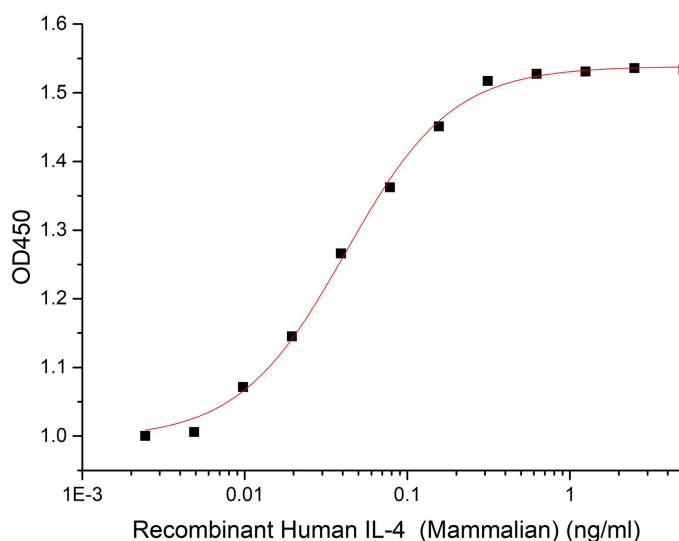
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution of 20mM PB, 150mM NaCl, pH 7.4.
<b>Storage</b>	Lyophilized protein should be stored at ≤ -20°C, stable for one year after receipt. Reconstituted protein solution can be stored at 2-8°C for 2-7 days. Aliquots of reconstituted samples are stable at ≤ -20°C for 3 months.
<b>Endotoxin</b>	< 0.01 EU/µg as determined by LAL test.
<b>Reconstitution</b>	Always centrifuge tubes before opening. Do not mix by vortex or pipetting. It is not recommended to reconstitute to a concentration less than 100µg/ml. Dissolve the lyophilized protein in distilled water. Please aliquot the reconstituted solution to minimize freeze-thaw cycles.
<b>Shipping</b>	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature listed below.

## Experimental Data

### Purity-SDS-PAGE



### Bioactivity-Cell Based Assay



Greater than 95% as Measured in a cell proliferation assay using TF-1 human determined by reducing erythroleukemic cells. The ED50 for this effect is 0.01-0.05 ng/ml. SDS-PAGE. (QC verified) (QC verified)

## Background

Interleukin-4 (IL-4) is a pleiotropic cytokine that regulates diverse T and B cell responses including cell proliferation, survival and gene expression. IL-4 is produced by mast cells, T cells, and bone marrow stromal cells. IL-4 regulates the differentiation of naive CD4<sup>+</sup> T cells into helper Th2 cells, characterized by their cytokine-secretion profile that includes secretion of IL-4, IL-5, IL-6, IL-10, and IL-13, which favor a humoral immune response. Another dominant function of IL-4 is the regulation of immunoglobulin class switching to the IgG1 and IgE isotypes. Excessive IL-4 production by Th2 cells has been associated with elevated IgE production and allergic response.