

## Recombinant Rhesus Macaque Interleukin-4

### Information

<b>Gene ID</b>	
<b>Accession #</b>	P51492
<b>Alternate Names</b>	BSF-1, Lymphocyte Stimulatory Factor 1
<b>Source</b>	Escherichia coli.
<b>M.Wt</b>	Approximately 14.9 kDa, a single non-glycosylated polypeptide chain containing 129 amino acids.
<b>AA Sequence</b>	HNCHIALREI IETLNSLTEQ KTLCTKLTIT DILAASKNTT EKETFCRAAT VLRQFYSHHE KDTRCLGATA QQFHRHKQLI RFLKRLDRNL WGLAGLNSCP VKEANQSTLE DFLERLKTIM REKYSKCSS
<b>Appearance</b>	Sterile Filtered White lyophilized (freeze-dried) powder.
<b>Stability &amp; Storage</b>	Use a manual defrost freezer and avoid repeated freeze-thaw cycles - 12 months from date of receipt, -20 to -70 °C as supplied - 1 month, 2 to 8 °C under sterile conditions after reconstitution - 3 months, -20 to -70 °C under sterile conditions after reconstitution
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered concentrated solution in 2 × PBS, pH 7.4, 5 % trehalose.
<b>Reconstitution</b>	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1 % BSA to a concentration of 0.1-1.0 mg/ml. Stock solutions should be apportioned into working aliquots and stored at ≤ -20°C. Further dilutions should be made in appropriate buffered solutions.
<b>Biological Activity</b>	Fully biologically active when compared to standard. The ED as determined by a cell proliferation assay using human TF-1 cells is less than 1.0 ng/ml, corresponding to a specific activity of > 1.0 × 10 IU/mg.
<b>Shipping Condition</b>	Gel pack.
<b>Handling</b>	Centrifuge the vial prior to opening.
<b>Usage</b>	For Research Use Only! Not to be used in humans.

### Components and Storage

Components	5µg	100µg	500µg
Recombinant Rhesus Macaque Interleukin-4	5µg	100µg	500µg

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- 12 months from date of receipt, -20 to -70 °C as supplied
- 1 month, 2 to 8 °C under sterile conditions after reconstitution
- 3 months, -20 to -70 °C under sterile conditions after reconstitution

## Quality Control

Purity	> 96 % by SDS-PAGE and HPLC analyses.
Endotoxin	Less than 1 EU/μg of rRhIL-4 as determined by LAL method.

## Description

Interleukin-4 (IL-4) is a pleiotropic cytokine mainly produced by mast cells, activated T cells and bone marrow stromal cells. It has many biological roles, including the stimulation of activated B-cell and T-cell proliferation, and the differentiation of CD4+ T-cells into Th2 cells. Additionally, It enhances both secretion and cell surface expression of IgE and IgG1 and also regulates the expression of the low affinity Fc receptor for IgE (CD23) on both lymphocytes and monocytes. The rhesus macaque IL-4 shares about 40 % ~ 45 % a.a. sequence identity with human, mouse, rat IL-4 and they are species-specific in their activities.

## Reference

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4. Eder A, Krafft-Czepa H, Krammer PH. 1988. Nucleic Acids Res. 16:772
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