

## ChemUhot Recombinant Rhesus Macaque Interleukin-4 (rRhIL-4)

## **ChemWhat Technical Data Sheet (TDS)**

Catalog Number:

111-04

Source:

Escherichia coli.

Molecular Weight:

Approximately 14.9 kDa, a single non-glycosylated polypeptide chain containing 129 amino acids.

Quantity:

 $5 \mu g / 20 \mu g / 1000 \mu g$ 

AA Sequence:

HNCHIALREI IETLNSLTEQ KTLCTKLTIT DILAASKNTT EKETFCRAAT VLRQFYSHHE

KDTRCLGATA QQFHRHKQLI RFLKRLDRNL WGLAGLNSCP VKEANQSTLE DFLERLKTIM

REKYSKCSS

**Purity:** 

> 96 % by SDS-PAGE and HPLC analyses.

Biological Activity:

Fully biologically active when compared to standard. The ED<sub>50</sub> 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  $> 1.0 \times$ 

106 IU/mg.

Physical Appearance:

Sterile Filtered White lyophilized (freeze-dried) powder.

Formulation:

Lyophilized from a 0.2 μm filtered concentrated solution in 2 × PBS, pH 7.4, 5 % trehalose.

Endotoxin:

Less than 1 EU/µg of rRhIL-4 as determined by LAL method.

Reconstitution:

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  $\leq$  -20°C. Further dilutions should be made in appropriate buffered solutions.

Shipping:

The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature

recommended below.

Stability & Storage:

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.

Usage:

ChemWhat Limited in UK offers this branded product for research, development or further

evaluation purposes. NOT FOR HUMAN USE.

## Rhesus Macaque Interleukin-4

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.

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