

## Recombinant Rat Interleukin-5 (rRtIL-5)

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

Catalog Number:

141-05

Source:

Escherichia coli.

Molecular Weight:

Approximately 26.2 kDa, a disulfide-linked homodimeric protein containing two 113 amino acids.

Quantity:

 $2\mu g/10\mu g/1000\mu g$ 

AA Sequence:

MEIPMSTVVK ETLIQLSTHR ALLTSNETMR LPVPTHKNHQ LCIGEIFQGL DILKNQTVRG

GTVEILFQNL SLIKKYIDGQ KEKCGEERRK TRHFLDYLQE FLGVMSTEWA MEV

**Purity:** 

> 98 % by SDS-PAGE and HPLC analyses.

Biological Activity:

Fully biologically active when compared to standard. The  $\mathrm{ED}_{50}$  as determined by a cell proliferation

assay using human TF-1 cells is less than 0.5 ng/ml, corresponding to a specific activity of > 2.0 ×

 $10^6$  IU/mg.

Physical Appearance:

Sterile Filtered White lyophilized (freeze-dried) powder.

Formulation:

Lyophilized from a 0.2 µm filtered concentrated solution in PBS, pH 7.4.

Endotoxin:

Less than 1 EU/µg of rRtIL-5 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.

## Rat Interleukin-5

IL-5, also named B-cell differentiation factor I, eosinophil differentiation factor and TRF, is belonging to the cytokine family and the IL-5 gene is in close proximity to the genes encoding IL-3, IL-4, and granulocyte-macrophage colony-stimulating factor (GM-CSF), which are often co-expressed in TH2 cells. Through binding to the IL-5 receptor, IL-5 stimulates B cell growth and increases immunroglobulin secretion. It is also a key mediator in eosinophil activation. Interleukin-5 has long been associated with the cause of several allergic diseases including allergic rhinitis and asthma.Rat IL-5 is a 132-amino acid (115 in human, 133 in the mouse) -long TH2 cytokine that is part of the hematopoietic family. Unlike other members of this cytokine family (namely IL-3 and GM-CSF), this glycoprotein in its active form is a homodimer.

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