

## Recombinant Murine Interleukin-5 (rMuIL-5)

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

Catalog Number:

121-05

Source:

Escherichia coli.

Molecular Weight:

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

Quantity:

 $5\mu g/25\mu g/1000\mu g$ 

AA Sequence:

MEIPMSTVVK ETLTQLSAHR ALLTSNETMR LPVPTHKNHQ LCIGEIFQGL DILKNQTVRG

GTVEMLFQNL SLIKKYIDRQ KEKCGEERRR TRQFLDYLQE FLGVMSTEWA MEG

**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 2 ng/ml, corresponding to a specific activity of > 5.0 × 10<sup>5</sup>

IU/mg.

Physical Appearance:

Sterile Filtered White lyophilized (freeze-dried) powder.

Formulation:

Lyophilized from a 0.2 µm filtered concentrated solution in 20 mM Tris, pH 9.0, 150 mM NaCl.

Endotoxin:

Less than 0.1 EU/µg of rMuIL-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.

## Murine 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. The cDNA for murine IL-5 encodes a signal peptide and a 113 amino acid mature protein. Mature murine IL-5 shares 70 %, 94 %, 58 %, 66 %, 59 % and 63 % a.a. sequence identity with human, rat, canine, equine, feline and porcine IL5, respectively. It shows cross-reactivity with human IL5 receptor.

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