

**ChemWhat Technical Data Sheet (TDS)**

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<b>Catalog Number:</b>	141-03B
<b>Source:</b>	<i>Escherichia coli</i> .
<b>Molecular Weight:</b>	Approximately 16.3 kDa, a single non-glycosylated polypeptide chain containing 144 amino acids.
<b>Quantity:</b>	5 $\mu$ g /20 $\mu$ g /1000 $\mu$ g
<b>AA Sequence:</b>	MISDRGSDAH HLLRTLDCRT IALEILVKLP YPQVSGLNNS DDKANLRNST LRRVNLDEFL KSQEEFDSQD TTDIKSKLQK LKCCIPAAAS DSVLPGVYNK DLDDFKKKLR FYVIHLKDLQ PVSVSRPPQP TSSSDNFRPM TVEC
<b>Purity:</b>	> 95 % by SDS-PAGE and HPLC analyses.
<b>Biological Activity:</b>	Fully biologically active when compared to standard. The ED <sub>50</sub> as determined by a cell proliferation assay using murine MC-9 cells is less than 10 ng/ml, corresponding to a specific activity of > 1.0 $\times$ 10 <sup>5</sup> IU/mg.
<b>Physical Appearance:</b>	Sterile Filtered White lyophilized (freeze-dried) powder.
<b>Formulation:</b>	Lyophilized from a 0.2 $\mu$ m filtered concentrated solution in PBS, pH 7.4.
<b>Endotoxin:</b>	Less than 1 EU/ $\mu$ g of rRtIL-3 $\beta$ as determined by LAL method.
<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 $\leq$ -20 $^{\circ}$ C . Further dilutions should be made in appropriate buffered solutions.
<b>Shipping:</b>	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
<b>Stability &amp; Storage:</b>	<b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <ul style="list-style-type: none"><li>● 12 months from date of receipt, -20 to -70 <math>^{\circ}</math>C as supplied.</li><li>● 1 month, 2 to 8 <math>^{\circ}</math>C under sterile conditions after reconstitution.</li><li>● 3 months, -20 to -70 <math>^{\circ}</math>C under sterile conditions after reconstitution.</li></ul>
<b>Usage:</b>	<b>ChemWhat Limited in UK offers this branded product for research, development or further evaluation purposes. NOT FOR HUMAN USE.</b>

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***Rat Interleukin-3 beta***

Interleukin-3 (IL-3) is a type of biological signal (cytokine) which is encoded by the IL-3 gene located on chromosome 5 and produced primarily by activated T cells beside human thymic epithelial cells, activated murine mast cells, murine keratinocytes and neurons/astrocytes. It exerts its biological activities through binding to Interleukin-3 receptors included  $\alpha$  and  $\beta$  subunits, but sequence analysis revealed a number of features indicative of the presence of only one  $\beta$ -subunit in the rat. Interleukin-3 acts in hematopoiesis by controlling the production, differentiation, and function of 2 related white cell populations of the blood, the granulocytes and the monocytes-macrophages. Furthermore, rat and human IL-3 share low homology and have not cross species activity.