

**ChemWhat Technical Data Sheet (TDS)**

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<b>Catalog Number:</b>	141-01B
<b>Source:</b>	<i>Escherichia coli</i> .
<b>Molecular Weight:</b>	Approximately 17.3 kDa, a single non-glycosylated polypeptide chain containing 153 amino acids.
<b>Quantity:</b>	2 $\mu$ g/10 $\mu$ g/1000 $\mu$ g
<b>AA Sequence:</b>	MVPIRQLHCR LRDEQQKCLV LSDPCELKAL HLNGQNISQQ VVFSMSFVQG ETSNDKIPVA LGLKGLNLYL SCVMKDGTP LQLESVDPKQ YPKKKMEKRF VFNKIEVGTK VEFESAQFPN WYISTSQAEH RPVFLGNSNG RDIVDFTMEP VSS
<b>Purity:</b>	> 96 % 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 D10S cells is less than 0.1 ng/ml, corresponding to a specific activity of > 1.0 $\times$ 10 <sup>7</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, with 5 % trehalose, 0.02 % Tween-20.
<b>Endotoxin:</b>	Less than 1 EU/ $\mu$ g of rRtIL-1 $\beta$ 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>	Use a <b>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-1 beta***

Interleukin-1beta (IL-1 $\beta$ ) is a non-secreted proinflammatory cytokine produced mainly by activated macrophages, as well as neutrophils, epithelial cells and endothelial cells. It possesses metabolic, physiological, haematopoietic activities, and plays one of the central roles in the regulation of the immune responses. Both IL-1 $\alpha$  and IL-1 $\beta$  binds to the same receptor and has similar but not identical biological properties. The mature rat IL-1 $\beta$  shares 90 % a.a. sequence identity with cotton rat and mouse and 65 % to 77 % with canine, human and rhesus IL-1 $\beta$ .