

**ChemWhat** Recombinant Murine Interleukin-36 beta, 153a.a.  
A brand under Watson (rMuIL-36 $\beta$ , 153a.a.)

**ChemWhat Technical Data Sheet (TDS)**

<b>Catalog Number:</b>	121-36D
<b>Source:</b>	<i>Escherichia coli</i> .
<b>Molecular Weight:</b>	Approximately 17.4 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>	SSQSPRNYRV HDSQQMVWVL TGNTLTAVPA SNNVKPVILS LIACRDTEFQ DVKKGNLVFL GIKRNRLCFC CVEMEGKPTL QLKEVDIMNL YKERKAQKAF LFYHGIEGST SVFQSVLYPG WFIATSSIER QTILTHQRG KLVNTNFIYE SEK
<b>Purity:</b>	> 97 % 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 inducing IL-6 secretion in murine NIH/3T3 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, 5% trehalose.
<b>Endotoxin:</b>	Less than 1 EU/ $\mu$ g of rMuIL-36 $\beta$ , 153a.a. 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 manual defrost freezer and avoid repeated freeze-thaw cycles. <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>	ChemWhat Limited in UK offers this branded product for research, development or further evaluation purposes. <b>NOT FOR HUMAN USE.</b>

***Murine Interleukin-36 beta, 153a.a.***

Interleukin-36 is a pro-inflammatory cytokine which plays an important role in the pathophysiology of several diseases. IL-36 $\alpha$ , IL-36 $\beta$ , and IL-36 $\gamma$  (formerly IL-1F6, IL-1F8, and IL-1F9) are IL-1 family members that signal through the IL-1 receptor family members IL-1Rrp2 (IL-1RL2) and IL-1RAcP. IL-36 beta is reported to be expressed at higher levels in psoriatic plaques than in symptomless psoriatic skin or healthy control skin and it can stimulate production of interleukin-6 and interleukin-8 in synovial fibroblasts, articular chondrocytes and mature adipocytes. IL-36 beta has two isoforms. IL-36 $\beta$ 2 contains one potential N-linked glycosylation site in its C-terminus, while IL -36 $\beta$  isoform 1 lacks potential N-linked glycosylation sites and four of the conserved  $\beta$ -strands. Within the IL-1 family, IL-36 $\beta$ /IL-1F8 shares 30 %, 32 %, 37 %, 46 %, 34 %, 45 % and 28 % aa sequence identity with IL-1 ra, IL-1 $\beta$ , IL-36Ra/IL-1F5, IL-36 $\alpha$ /IL-1F6, IL-37/IL-1F7, IL-36 $\gamma$ /IL-1F9 and IL-1F10, respectively.

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