

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

**ChemWhat Technical Data Sheet (TDS)**

<b>Catalog Number:</b>	101-36D
<b>Source:</b>	<i>Escherichia coli</i> .
<b>Molecular Weight:</b>	Approximately 17.2 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>	REAAPKSYAI RDSRQMVWVL SGNSLIAAPL SRSIKPVTLLH LIACRDTEFS DKEKGNMVYL GIK GKDLCLF CAEIQ GKPTL QLKEKNIMDL YVEKKAQKPF LFFHNKEGST SVFQSVSYPG WFIATSTTSG QPIFLTKERG ITNNTNFYLD SVE
<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-8 secretion in human preadipocytes 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 2 $\times$ PBS, pH 7.4.
<b>Endotoxin:</b>	Less than 1 EU/ $\mu$ g of rHuIL-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 less than 0.2 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>

***Human Interleukin-36 beta***

Interleukin-36 (IL-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. It has two isoforms. IL-36 $\beta$  isoform 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. Human IL-36 $\beta$  isoform 2 shares 62 %, 67 %, 63 % and 59 % a.a. identity with the most similar isoform of mouse, canine, bovine and equine IL-36 $\beta$ , respectively.

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