

## **Flogen<sup>®</sup> Recombinant Human Interleukin-36 beta, 157a.a.**

**(rHuIL-36 $\beta$ , 157a.a.)**

<b>Catalog Number:</b>	PGR0101-036C
<b>Source:</b>	<i>Escherichia coli</i> .
<b>Molecular Weight:</b>	Approximately 17.7kDa, a single non-glycosylated polypeptide chain containing 157 amino acids.
<b>Quantity:</b>	2 $\mu$ g/10 $\mu$ g/1000 $\mu$ g
<b>AA Sequence:</b>	MNPQREAAPK SYAIRDSRQM VWVLSGNSLI AAPLSRSIKP VTLHLIACRD TEFSDKEKGN MVYLGKIGKD LCLFCAEIQG KPTLQLKEKN IMDLYVEKKA QKPFLFFHNK EGSTSVFQSV SYPGWFIATS TTSGQPIFLT KERGITNNTN FYLDSVE
<b>Purity:</b>	> 97 % by SDS-PAGE and HPLC analyses.
<b>Biological Activity:</b>	Fully biologically active when compared to standard. The specific activity is determined by its binding ability in a functional ELISA. Immobilized rHuIL-36 $\beta$ at 1 $\mu$ g/mL can bind recombinant human IL-1 Rrp2 Fc Chimera with a range of 0.15-5 $\mu$ g/mL.
<b>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 rHuIL-36 $\beta$ , 157a.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 $\leq -20^{\circ}\text{C}$ . Further dilutions should be made in appropriate buffered solutions.
<b>Storage:</b>	This lyophilized preparation is stable at 2-8 $^{\circ}\text{C}$ , but should be kept at $-20^{\circ}\text{C}$ for long term storage, preferably desiccated. Upon reconstitution, the preparation is stable for up to one week at 2-8 $^{\circ}\text{C}$ . For maximal stability, apportion the reconstituted preparation into working aliquots and store at $-20^{\circ}\text{C}$ to $-70^{\circ}\text{C}$ . <b>Avoid repeated freeze/thaw cycles.</b>
<b>Usage:</b>	This material is for research, laboratory 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. Furthermore, it can stimulate production of interleukin-6 and interleukin-8 in synovial fibroblasts, articular chondrocytes and mature adipocytes. Two alternatively spliced transcript variants encode distinct (164 or 157 residues) protein isoforms that differ in their C-terminal 70 amino acid residues have been reported and IL-36 $\beta$  isoform 2 is synthesized as a 157 a.a. protein. Specifically, human IL-36 $\beta$  shares low sequence identity with IL-1 $\beta$ , IL-36RA, IL-36 $\alpha$  and IL-36 $\gamma$ .