## Prime Cene Recombinant Human Interleukin-36 alpha, 153a.a. a biotechne brand (rHuIL-36α, 153a.a.)

## **PrimeGene Technical Data Sheet**

Catalog Number: 101-36B

**Source:** Escherichia coli.

**Molecular Weight:** Approximately 17.1 kDa, a single non-glycosylated polypeptide chain containing 153 amino acids.

**Quantity:**  $2\mu g/10\mu g/1000\mu g$ 

AA Sequence: KIDTPQQGSI QDINHRVWVL QDQTLIAVPR KDRMSPVTIA LISCRHVETL EKDRGNPIYL

GLNGLNLCLM CAKVGDQPTL QLKEKDIMDL YNQPEPVKSF LFYHSQSGRN STFESVAFPG

WFIAVSSEGG CPLILTQELG KANTTDFGLT MLF

**Purity:** > 95 % by SDS-PAGE and HPLC analyses.

Biological Activity: 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  $> 1.0 \times$ 

105 IU/mg.

**Physical Appearance:** Sterile Filtered White lyophilized (freeze-dried) powder.

Formulation: Lyophilized from a 0.2 µm filtered concentrated solution in 20 mM Tris, 300 mM NaCl, pH 8.0,

0.1 % Tween 80.

**Endotoxin:** Less than 1 EU/ $\mu$ g of rHuIL-36 $\alpha$ , 153a.a. as determined by LAL method.

**Reconstitution:** 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

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stored at  $\leq$  -20°C. Further dilutions should be made in appropriate buffered solutions.

**Shipping:** The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature

recommended below.

Stability & Storage: Use a manual defrost freezer and avoid repeated freeze-thaw cycles.

■ 12 months from date of receipt, -20 to -70 °C as supplied.

• 1 month, 2 to 8 °C under sterile conditions after reconstitution.

• 3 months, -20 to -70 °C under sterile conditions after reconstitution.

Usage: This material is offered by Shanghai PrimeGene Bio-Tech for research, laboratory or further

evaluation purposes. **NOT FOR HUMAN USE**.

## Human Interleukin-36 alpha

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. Studies showed IL-36 $\alpha$  is mainly found in skin and lymphoid tissues, but also in fetal brain, trachea, stomach and intestine. Notably, IL-36 alpha is the only novel IL-1 family member expressed on T-cells. Recombinant human interleukin-36 alpha (153 a.a.) contains 153 amino acids residues which is a single non-glycosylated polypeptide and it shares 57 – 68 % a.a. sequence identity with mouse, rabbit, equine and bovine IL-36 $\alpha$  and 27 – 57 % a.a. sequence identity with other novel IL-1 family members.

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