

## Recombinant Murine Interleukin-36 gamma, 152a.a.

(rMuIL-36γ, 152a.a.)

## **PrimeGene Technical Data Sheet**

Catalog Number:

121-36E

Source:

Escherichia coli.

**Molecular Weight:** 

Approximately 17.3 kDa, a single non-glycosylated polypeptide chain containing 152 amino acids.

Quantity:

 $2\mu g/10\mu g/1000\mu g$ 

**AA Sequence:** 

GRETPDFGEV FDLDQQVWIF RNQALVTVPR SHRVTPVSVT ILPCKYPESL EQDKGIAIYL GIONPDKCLF CKEVNGHPTL LLKEEKILDL YHHPEPMKPF LFYHTRTGGT STFESVAFPG

HYIASSKTGN PIFLTSKKGE YYNINFNLDI KS

**Purity:** 

> 97 % 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-6 secretion in murine NIH/3T3 cells is less than 10 ng/ml, corresponding to a specific activity of > 1.0

 $\times 10^5$  IU/mg.

**Physical Appearance:** 

Sterile Filtered White lyophilized (freeze-dried) powder.

**Formulation:** 

Lyophilized from a 0.2 µm filtered solution in 1 M MOPS, 10 mM NaAC, pH7.6, with 2 mM EDTA,

5 % Trehalose, 0.02 % Tween-20.

**Endotoxin:** 

Less than 0.1 EU/μg of rMuIL-36γ, 152a.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

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

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evaluation purposes. NOT FOR HUMAN USE.

## Murine Interleukin-36 gamma

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 $\gamma$  is secreted when transfected into 293-T cells and it could constitute part of an independent signaling system analogous to interleukin-1 alpha (IL-1A), beta (IL-1B) receptor agonist and interleukin-1 receptor type I (IL-1R1). Furthermore, IL-36 $\gamma$  also can function as an agonist of NF-kappa B activation through the orphan IL-1-receptor-related protein 2. Recombinant murine IL-36 $\gamma$  is synthesized as a 17.3 kDa, 152 amino acid (a.a.) protein that contains no signal sequence, no prosegment and no potential N-linked glycosylation site. Murine to human, IL-36 $\gamma$  shares 53 % a.a. identity. Within the family, IL-36 $\gamma$  shares about 25 % ~ 55 % a.a. sequence identity with IL-1RA, IL-1 $\beta$ , IL-36RA, IL-36 $\alpha$ , IL-37, IL-36 $\beta$  and IL-1F10.

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