

# Recombinant Murine Interleukin-36 beta, 183a.a.

#R00235

Size: 10 µg/100 µg/500 µg

## 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.



**Warning:** This product is intended for scientific research only. It is not to be used for medical or diagnostic procedures in humans or animals, nor as a food, cosmetic, or household product.

## Background

Interleukin-36 (IL-36) is a pro-inflammatory cytokine which plays an important role in the pathophysiology of several diseases. IL-36α, IL-36β, and IL-36γ (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 beta has two isoforms. IL-36β isoform 2 contains one potential N-linked glycosylation site in its C-terminus, while IL -36β isoform 1 lacks potential N-linked glycosylation sites and four of the conserved β-strands. Within the IL-1 family, IL-36β/IL-1F8 shares 30 %, 32 %, 37 %, 46 %, 34 %, 45 % and 28 % a.a. sequence identity with IL-1 ra, IL-1β, IL-36Ra/IL-1F5,

IL-36α/IL-1F6, IL-37/IL-1F7, IL-36γ/IL-1F9 and IL-1F10, respectively.

## AA Sequence

MMAFPQSCVHVLPPKSIQMWEPNHNTMHGSSQSP  
RNYRVHDSQQMVWVLTGNTLTAVPASNNVKPVILSLI  
ACRDTEFQDVKKGNLVFLGIKNRNLFCCEVEMEGKP  
TLQLKEVDIMNLYKERKAQKAFLFYHGIEGSTSVFQS  
VLYPGWFIATSSIERQTIILTHQRGKLVNTNFYIESEK

## 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 ≤ -20 °C. Further dilutions should be made in appropriate buffered solutions.

## Product Specification

|                     |                                                                                                                                                                                                                    |
|---------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Synonyms            | FIL1 eta, IL-1 eta, IL-1F8, IL-1H2                                                                                                                                                                                 |
| Accession           | Q9D6Z6                                                                                                                                                                                                             |
| GeneID              | 69677                                                                                                                                                                                                              |
| Species             | Murine                                                                                                                                                                                                             |
| Source              | Escherichia coli.                                                                                                                                                                                                  |
| Molecular Weight    | Approximately 20.9 kDa, a single non-glycosylated polypeptide chain containing 183 amino acids.                                                                                                                    |
| Purity              | > 95 % by SDS-PAGE and HPLC analyses.                                                                                                                                                                              |
| Biological Activity | Fully biologically active when compared to standard. The specific activity determined by its ability in a functional ELISA. Immobilized rMuIL-36β at 1 µg/mL can bind recombinant murine IL-1 Rrp2 with a range of |

|                            |                                                                                                             |
|----------------------------|-------------------------------------------------------------------------------------------------------------|
|                            | 0.15-5 µg/mL.                                                                                               |
| <b>Physical Appearance</b> | Sterile Filtered White lyophilized (freeze-dried) powder.                                                   |
| <b>Formulation</b>         | Lyophilized from a 0.2 µm filtered concentrated solution in 20 mM Tris, 300 mM NaCl, pH 8.0, 5 % trehalose. |
| <b>Endotoxin</b>           | Less than 1 EU/µg of rMuL-36β, 183a.a. as determined by LAL method.                                         |