

# Recombinant Murine Interleukin-36 Receptor Antagonist Protein

#R00238

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 receptor antagonist (IL-36RA) is a secreted protein which belongs to the interleukin 1 cytokine family (IL-1 family) and it is predominantly expressed in keratinocytes but not in fibroblasts, endothelial cells or melanocytes. IL-36RA has been reported to antagonize the biological activity of IL-36α (IL-1F6), IL-36β (IL-1F8), and IL-36γ (IL-1F9). Furthermore, 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). In addition, The receptor for IL-36RA has not been positively identified. Indirect evidence suggests it is IL-1Rrp2. Recombinant murine interleukin-36 RA contains 154 amino acid residues and it shares 91 % a.a. sequence identity with human IL-36RA.

## AA Sequence

VLSGALCFRMKDSALKVLYLHNNQLLAGGLHAEKVIK  
GEEISVVPNRALDASLSPVILGVQGGSQCLSCGTEKG  
PILKLEPVNIMELYLGAKESKSFTFYRRDMGLTSSFES  
AAYPGWFLCTSPEADQPVRLTQIPEDPAWDAPITDFY  
FQQCD

## 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

|                            |                                                                                                 |
|----------------------------|-------------------------------------------------------------------------------------------------|
| <b>Synonyms</b>            | IL-1HY1, IL-1 delta, IL-1F5, IL-1H3, IL-1L1                                                     |
| <b>Accession</b>           | Q9QYY1                                                                                          |
| <b>GeneID</b>              | 54450                                                                                           |
| <b>Species</b>             | Murine                                                                                          |
| <b>Source</b>              | Escherichia coli.                                                                               |
| <b>Molecular Weight</b>    | Approximately 16.9 kDa, a single non-glycosylated polypeptide chain containing 154 amino acids. |
| <b>Purity</b>              | > 95 % by SDS-PAGE and HPLC analyses.                                                           |
| <b>Biological Activity</b> | Measured by its ability to inhibit IL-36γ induced IL-6 production by human PBMCs.               |
| <b>Physical Appearance</b> | Sterile Filtered White lyophilized (freeze-dried) powder.                                       |
| <b>Formulation</b>         | Lyophilized from a 0.2 µm                                                                       |

|                  |                                                                   |
|------------------|-------------------------------------------------------------------|
|                  | filtered concentrated solution in<br>PBS, pH 7.4.                 |
| <b>Endotoxin</b> | Less than 1 EU/μg of<br>rMuL-36RA as determined by<br>LAL method. |

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