

Recombinant Human Interleukin-36 Receptor Antagonist Protein

#R00072

Size: 5 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 human IL-36 RA contains 154 amino acid residues and it shares 91 % a.a. sequence identity with murine IL-36RA.

AA Sequence

VLSGALCFRMKDSALKVLYLHNNQLLAGGLHAGKVIK
GEEISVVPNRWLDASLSPVILGVQGGSQCLSCGVGQ
EPTLTLEPVNIMELYLGAKESKSFTFYRRDMGLTSSFE
SAAYPGWFLCTVPEADQPVRTQLPENGGWNAPITD
FYFQQCD

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	IL-1RP3, IL-1HY1, IL-1 delta, IL-1F5, IL-1ra homolog 1, IL-1L1
Accession	Q9UBH0
GeneID	26525
Species	Human
Source	Escherichia coli.
Molecular Weight	Approximately 16.8 kDa, a single non-glycosylated polypeptide chain containing 154 amino acids.
Purity	> 95 % by SDS-PAGE and HPLC analyses.
Biological Activity	Fully biologically active when compared to standard. The ED ₅₀ as determined by inhibiting IL-36 beta induced IL-8 secretion by human preadipocytes is less than 1.0 µg/ml, corresponding to

a specific activity of > 1000 IU/mg in the presence of 20 ng/ml of recombinant human IL-36 beta.

Physical Appearance	Sterile Filtered White lyophilized (freeze-dried) powder.
Formulation	Lyophilized from a 0.2 µm filtered concentrated solution in PBS, pH 7.4.
Endotoxin	Less than 1 EU/µg of rHuIL-36RA as determined by LAL method.
