

Recombinant Murine Interleukin-36 alpha, 153a.a.

#R00234

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-36α is mainly found in skin and lymphoid tissues, but also in fetal brain, trachea, stomach and intestine. It is expressed by monocytes, B and T cells. Notably, IL-36 alpha is the only novel IL-1 family member expressed on T-cells. Recombinant murine interleukin-36 alpha contains 153 amino acids residues which is a single non-glycosylated polypeptide. Specifically, mouse IL-36α shares 83 % a.a. sequence identity with rat IL-36α, 54 – 60 % with human, rabbit, equine and bovine IL-36α.

AA Sequence

RAASPSLRHVQDLSSRVWILQNNILTAVPRKEQTVPV

TITLLPCQYLDLTLETNRGDPTYMGVQRPMSCLFCTK
DGEQPVLQLGEGNIMEMYNKKEPVKASLFYHKKSGT
TSTFESAAFPGWFIACVSKGSCPLILTQELGEIFITDFE
MIVVH

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

Species	Murine
Source	Escherichia coli.
Molecular Weight	Approximately 17.1kDa, a single non-glycosylated polypeptide chain containing 153 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 inducing IL-6 secretion in murine NIH/3T3 cells is less than 25 ng/ml, corresponding to a specific activity of > 4.0 × 10 ⁴ IU/mg.
Physical Appearance	Sterile Filtered White lyophilized (freeze-dried) powder.
Formulation	Lyophilized from a 0.2 µm

filtered concentrated solution in
PBS, 1 mM DTT, 3 % trehalose.

Endotoxin

Less than 1 EU/μg of rMuL-36α,
153a.a. as determined by LAL
method.