

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

#R00067

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-36 α , IL-36 β , and IL-36 γ (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. Studies showed IL-36 α is mainly found in skin and lymphoid tissues, but also in fetal brain, trachea, stomach and intestine. Notably, IL-36 alpha is the only novel IL-1 family member expressed on T-cells. Recombinant human interleukin-36 alpha (153 a.a.) contains 153 amino acids residues which is a single non-glycosylated polypeptide and it shares 57 – 68 % a.a. sequence identity with mouse, rabbit, equine and bovine IL-36 α and 27 – 57 % a.a. sequence identity with other novel IL-1 family members.

AA Sequence

KIDTPQQGSIQDINHRVWVLQDQTLIAVPRKDRMSPV
TIALISCRHVETLEKDRGNPIYLGLNGLNLCLMCAKVG
DQPTLQLKEKDIMDLYNQPEPVKSFLFYHSQSGRNS
TFESVAFPGWFIAVSSEGGCPLILTQELGKANTTDFGL
TMLF

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.

Product Specification

Synonyms	FIL1 epsilon, IL-1 epsilon, IL-1F6, IL-1H1
Accession	Q9UHA7
GeneID	27179
Species	Human
Source	Escherichia coli.
Molecular Weight	Approximately 17.1 kDa, 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-8 secretion in human preadipocytes is less than 10 ng/ml, corresponding to a

	specific activity of $> 1.0 \times 10^5$ IU/mg.
Physical	Sterile Filtered White lyophilized
Appearance	(freeze-dried) powder.
Formulation	Lyophilized from a 0.2 μ m filtered concentrated solution in 20 mM Tris, 300 mM NaCl, pH 8.0, 0.1 % Tween 80.
Endotoxin	Less than 1 EU/ μ g of rHuIL-36 α , 153a.a. as determined by LAL method.