

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

Information

Gene ID	27179
Accession #	Q9UHA7
Alternate Names	FIL1 epsilon, IL-1 epsilon, IL-1F6, IL-1H1
Source	Escherichia coli.
M.Wt	Approximately 17.1 kDa, a single non-glycosylated polypeptide chain containing 153 amino acids.
AA Sequence	KIDTPQQGSI QDINHRVWVL QDQTLIAVPR KDRMSPVTIA LISCRHVETL EKDRGNPIYL GLNGLNLCLM CAKVG DQPTL QLKEKDIMDL YNQPEPVKSF LFYHSQSGRN STFESVAFPG WFIASSEGG CPLILTQELG KANTTDFGLT MLF
Appearance	Sterile Filtered White lyophilized (freeze-dried) powder.
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
Formulation	Lyophilized from a 0.2 µm filtered concentrated solution in 20 mM Tris, 300 mM NaCl, pH 8.0, 0.1 % Tween 80.
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.
Biological Activity	Fully biologically active when compared to standard. The ED as determined by inducing IL-8 secretion in human preadipocytes is less than 10 ng/ml, corresponding to a specific activity of > 1.0 × 10 IU/mg.
Shipping Condition	Gel pack.
Handling	Centrifuge the vial prior to opening.
Usage	For Research Use Only! Not to be used in humans.

Components and Storage

Components	10µg	100µg	500µg
Recombinant Human Interleukin-36 alpha, 153a.a.	10µg	100µg	500µg

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

Quality Control

Purity	> 95 % by SDS-PAGE and HPLC analyses.
Endotoxin	Less than 1 EU/ μ g of rHuIL-36 α , 153a.a. as determined by LAL method.

Description

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.

Reference

1. Nicklin MJ, Barton JL, Nguyen M, et al. 2002. Genomics. 79:718-25
2. Dinarello C, Arend W, Sims J, et al. 2010. Nat Immunol. 11:973
3. Barksby HE, Lea SR, Preshaw PM, et al. 2007. Clin Exp Immunol. 149:217-25
4. Smith DE, Renshaw BR, Ketchum RR, et al. 2000. J Biol Chem. 275:1169-75
5. Dunn E, Sims JE, Nicklin MJ, et al. 2001. Trends Immunol. 22:533-6.

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