Datasheet

Cat. No. P1255

Recombinant Human Interleukin-36 alpha, 158a.a.

Information

Gene ID	27179
Accession #	Q9UHA7
Alternate Names	FIL1 epsilon, IL-1 epsilon, IL-1F6, IL-1H1
Source	Escherichia coli.
M.Wt	Approximately 17.7 kDa, a single non-glycosylated polypeptide chain containing 158 amino acids.
AA Sequence	MEKALKIDTP QQGSIQDINH RVWVLQDQTL IAVPRKDRMS PVTIALISCR HVETLEKDRG NPIYLGLNGL NLCLMCAKVG DQPTLQLKEK DIMDLYNQPE PVKSFLFYHS QSGRNSTFES VAFPGWFIAV SSEGGCPLIL TQELGKANTT DFGLTMLF
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 2 × PBS, pH 7.4.
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 specific activity determined by its ability in a functional ELISA. Immobilized rHuIL-36α at 1 μg/mL can bind recombinant human IL-1 Rrp2 Fc Chimera with a range of 0.15-5 μg/mL.
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, 158a.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/μg of rHuIL-36α, 158a.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 contains 158 amino acids residues which is a single non-glycosylated polypeptide and it is 30 % a.a. identical to IL-1ra, and 27 %, 31 %, 36 %, 46 %, 57% and 28 % a.a. identical to IL-1 β , IL-36Ra/IL-1F5, IL-37/IL-1F7, IL-36 β /IL-1F8, IL-36 γ /IL-1F9 and IL-1F10.

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, Ketchem 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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