Datasheet

Cat. No. P1339

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

Information

Gene ID	69677
Accession #	Q9D6Z6
Alternate Names	FIL1 eta, IL-1 eta, IL-1F8, IL-1H2
Source	Escherichia coli.
M.Wt	Approximately 17.4 kDa, a single non-glycosylated polypeptide chain containing 153 amino acids.
AA Sequence	SSQSPRNYRV HDSQQMVWVL TGNTLTAVPA SNNVKPVILS LIACRDTEFQ DVKKGNLVFL GIKNRNLCFC CVEMEGKPTL QLKEVDIMNL YKERKAQKAF LFYHGIEGST SVFQSVLYPG WFIATSSIER QTIILTHQRG KLVNTNFYIE SEK
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 PBS, pH 7.4, 5% trehalose.
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-6 secretion in murine NIH/3T3 cells 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 Murine Interleukin-36 beta, 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	> 97 % by SDS-PAGE and HPLC analyses.
Endotoxin	Less than 1 EU/μg of rMuIL-36β, 153a.a. as determined by LAL method.

Description

Interleukin-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. IL-36 beta is reported to be expressed at higher levels in psoriatic plaques than in symptomless psoriatic skin or healthy control skin and it can stimulate production of interleukin-6 and interleukin-8 in synovial fibrobasts, articular chondrocytes and mature adipocytes. IL-36 beta has two isoforms. IL-36 β 2 contains one potential N-linked glycosylation site in its C-terminus, while IL -36 β isoform 1 lacks potential N-linked glycosylation sites and four of the conserved β -strands. Within the IL-1 family, IL-36 β /IL-1F8 shares 30 %, 32 %, 37 %, 46 %, 34 %, 45 % and 28 % a.a. sequence identity with IL-1 ra, IL-1 β , IL-36Ra/IL-1F5, IL-36 α /IL-1F6, IL-37/IL-1F7, IL-36 γ /IL-1F9 and IL-1F10, respectively.

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. Magne D, Palmer G, Barton JL, et al. 2006. Arthritis Res Ther. 8:R80
4. van Asseldonk EJ, Stienstra R, Koenen TB, et al. 2010. Obesity (Silver Spring). 18:2234-6
5. Johnston A, Xing X, Guzman AM, et al. 2011. J Immunol. 186:2613-22.

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