Datasheet

Cat. No. P1257

Recombinant Human Interleukin-36 beta, 157a.a.

Information

Gene ID	27177
Accession #	Q9NZH7-2
Alternate Names	FIL1 eta, IL-1 eta, IL-1F8, IL-1H2
Source	Escherichia coli.
M.Wt	Approximately 17.7kDa, a single non-glycosylated polypeptide chain containing 157 amino acids.
AA Sequence	MNPQREAAPK SYAIRDSRQM VWVLSGNSLI AAPLSRSIKP VTLHLIACRD TEFSDKEKGN MVYLGIKGKD LCLFCAEIQG KPTLQLKEKN IMDLYVEKKA QKPFLFFHNK EGSTSVFQSV SYPGWFIATS TTSGQPIFLT KERGITNNTN FYLDSVE
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.
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 is determined by its binding ability in a functional ELISA. Immobilized rHuIL-36β 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 beta, 157a.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 rHuIL-36β, 157a.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. IL-36 beta is reported to be expressed at higher levels in psoriatic plaques than in symptomless psoriatic skin or healthy control skin. Furthermore, it can stimulate production of interleukin-6 and interleukin-8 in synovial fibroblasts, articular chondrocytes and mature adipocytes. Two alternatively spliced transcript variants encode distinct (164 or 157 residues) protein isoforms that differ in their C-terminal 70 amino acid residues have been reported and IL-36 β isoform 2 is synthesized as a 157 a.a. protein. Specifically, human IL-36 β shares low sequence identity with IL-1 β , IL-36RA, IL-36 α and IL-36 γ .

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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