



Interleukin-36 alpha, 158 amino acids, human recombinant (rHull-36alpha)

Catalog No: 97599
Lot No: XXXXX
Source: *E. coli*
Synonyms: Interleukin 36 alpha, FIL1E, IL1F6, FIL1, IL1(EPSILON), interleukin 1 family member 6 (epsilon), MGC129552, MGC129553

Background

Human IL-36a belongs to the IL-1 family which includes IL-1b, IL-1a, IL-1ra, IL-18, IL-36ra (IL1F5), IL-36b (IL1F8), IL-36g (IL1F9), IL-37 (IL1F7) and IL-38 (IL-1F10). The IL-1 family members display a 12 b-strand, b-trefoil configuration, and are thought to have ascended from a mutual ancestral gene. IL-36a is an 18-22 kDa, 158aa intracellular and secreted protein which holds no signal sequence, no prosegment and no potential from N-linked glycosylation sites. IL-36a is released as a reaction to LPS and the cell ATP-induced activation of the P2X7 receptor. Human IL-36a (aa 6-158) shares 57-68% aa sequence homology with mouse, rabbit, equine and bovine IL-36a and 27-57% aa sequence homology with other new IL-1 family members. IL-36a is mostly found in skin and lymphoid tissues, but also in fetal brain, trachea, stomach and intestine.

Description

Interleukin-36A (158 amino acids) human recombinant produced in *E. coli* is a single, non-glycosylated, polypeptide chain containing 158 amino acids and having a molecular mass of 17.7 kDa. IL36A 158 a. a. human is purified by proprietary chromatographic techniques.

Physical Appearance

Sterile filtered white lyophilized (freeze-dried) powder.

Formulation

Lyophilized from a 0.2 µm filtered concentrated solution in 2xPBS, pH 7.4.

Solubility

It is recommended to reconstitute the lyophilized IL36A 158 a.a. in sterile 18 MΩ-cm H₂O not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

Stability

Lyophilized IL36A (158 aa), although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution IL36A 158 a.a. Human should be stored at 4°C between 2-7 days and for future use below -18°C. Please prevent freeze-thaw cycles.

Purity

Greater than 95.0% as determined by SDS-PAGE and HPLC analyses.

Amino Acid Sequence

MEKALKIDTP QQGSIQDINH RVWVLQDQTL IAVPRKDRMS PVTIALISCR HVETLEKDRG NPIYLG LNGL NLCLMCAKVG
DQPTLQLKEK DIMDLYNQPE PVKSFLFYHS QSGRNSTFES VAFPGWFIIV SSEGGCPLIL TQELGKANTT DFGLTMLF

Activity

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Fully biologically active when compared to standard. The specific activity determined by its ability in a functional ELISA. Immobilized rHuIL-36 at 1 µg/mL can bind recombinant human IL-1 Rrp2 Fc Chimera with a range of 0.15 - 5 µg/ml corresponding to a specific activity of 200,000 - 6,666,667 IU/mg.

Usage

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