

Animal-Free IL-36 alpha/IL-1F6 Protein, Human (His)

Cat. No.:	HY-P700126AF
Synonyms:	IL-36 alpha; IL-36 α ; Interleukin-36 Alpha; FIL1 Epsilon; Interleukin-1 Epsilon; IL-1 Epsilon; Interleukin-1 Family Member 6; IL-1F6; IL36A; FIL1E; IL1E; IL1F6
Species:	Human
Source:	E. coli
Accession:	Q9UHA7 (K6-F158)
Gene ID:	14440
Molecular Weight:	Approximately 18.05 kDa

PROPERTIES

AA Sequence	<p>M K I D T P Q Q G S I Q D I N H R V W V L Q D Q T L I A V P R K D R M S P V T I</p> <p>A L I S C R H V E T L E K D R G N P I Y L G L N G L N L C L M C A K V G D Q P T</p> <p>L Q L K E K D I M D L Y N Q P E P V K S F L F Y H S Q S G R N S T F E S V A F P</p> <p>G W F I A V S S E G G C P L I L T Q E L G K A N T T D F G L T M L F</p>
Biological Activity	Measure by its ability to induce IL-8 secretion in human PBMCs. The ED ₅₀ for this effect is <0.7 ng/mL.
Appearance	Lyophilized powder.
Formulation	Lyophilized from a solution containing 1X PBS, pH 7.4.
Endotoxin Level	<0.1 EU per 1 μ g of the protein by the LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 μ g/mL in ddH ₂ O.
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	<p>IL-36 alpha/IL-1F6 protein, a cytokine, binds to and signals through the IL1RL2/IL-36R receptor, activating the NF-kappa-B and MAPK signaling pathways in target cells, thereby contributing to a pro-inflammatory response. As part of the IL-36 signaling system, it is believed to be present in epithelial barriers and involved in local inflammatory responses, sharing similarities with the IL-1 system through the coreceptor IL1RAP. IL-36 alpha/IL-1F6 appears to play a crucial role in skin inflammatory responses by influencing keratinocytes, dendritic cells, and indirectly impacting T-cells, promoting tissue infiltration, cell maturation, and cell proliferation. In cultured keratinocytes, it induces the expression of various chemokines and pro-inflammatory cytokines, such as CCL3, CCL4, CCL5, CCL2, CCL17, CCL22, CL20, CCL5, CCL2, CCL17,</p>
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CCL22, CXCL8, CCL20, CXCL1, TNF-alpha, IL-8, and IL-6. Additionally, IL-36 alpha/IL-1F6 up-regulates the expression of IL-1A, IL-1B, and IL-6 in cultured monocytes, promotes cell maturation in myeloid dendritic cells, and facilitates dendritic cell maturation while driving T-cell proliferation in monocyte-derived dendritic cells. Its interaction with TMED10 mediates translocation from the cytoplasm into the endoplasmic reticulum-Golgi intermediate compartment (ERGIC) and subsequent secretion. Furthermore, IL-36 alpha/IL-1F6 may contribute to pro-inflammatory effects in the lung.

Caution: Product has not been fully validated for medical applications. For research use only.

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