

Animal-Free IL-36 gamma/IL-1F9 Protein, Mouse (His)

Cat. No.:	HY-P700211AF
Synonyms:	Interleukin-36 gamma; IL-36γ; IL36G; IL-1F9; IL-1H1
Species:	Mouse
Source:	E. coli
Accession:	Q8R460 (G13-S164)
Gene ID:	215257
Molecular Weight:	Approximately 18.27 kDa

PROPERTIES

AA Sequence	<p>M G R E T P D F G E V F D L D Q Q V W I F R N Q A L V T V P R S H R V T P V S V</p> <p>T I L P C K Y P E S L E Q D K G I A I Y L G I Q N P D K C L F C K E V N G H P T</p> <p>L L L K E E K I L D L Y H H P E P M K P F L F Y H T R T G G T S T F E S V A F P</p> <p>G H Y I A S S K T G N P I F L T S K K G E Y Y N I N F N L D I K S</p>
Biological Activity	Measure by its ability to induce IL-6 secretion in 3T3 cells. The ED ₅₀ for this effect is <15 ng/mL. The specific activity of recombinant mouse IL-36 gamma is >6 x10 ⁴ IU/mg
Appearance	Lyophilized powder.
Formulation	Lyophilized from a solution containing 1X PBS, pH 7.4.
Endotoxin Level	<0.1 EU per 1 μg of the protein by the LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 μg/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	IL-36 gamma/IL-1F9 Protein acts as an agonist, activating NF-kappa B through the orphan IL-1-receptor-related protein 2/IL1RL2. As part of the IL-36 signaling system, it is believed to be present in epithelial barriers, contributing to local inflammatory responses, akin to the IL-1 system, sharing the coreceptor IL1RAP. This protein is implicated in skin inflammatory responses, influencing keratinocytes, dendritic cells, and, indirectly, T-cells to drive tissue infiltration, cell maturation, and proliferation. Additionally, it may play a role in pro-inflammatory responses during specific neutrophilic airway inflammations and contribute to the innate immune response against fungal pathogens. IL-36 gamma induces the
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production of various pro-inflammatory cytokines in bone marrow-derived dendritic cells (BMDCs) and enhances dendritic cell maturation by stimulating the surface expression of CD80, CD86, and MHC class II. Furthermore, it induces the production of IFN-gamma, IL-4, and IL-17 in cultured CD4(+) T-cells and splenocytes. The protein interacts with the cargo receptor TMED10, mediating translocation from the cytoplasm into the endoplasmic reticulum-Golgi intermediate compartment (ERGIC) and subsequent secretion.

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

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