

Animal-Free IL-1 beta Protein, Pig (His)

Cat. No.:	HY-P700243AF
Synonyms:	Interleukin-1 beta; IL-1 β ; IL1F2; IL-1 beta; IL1B
Species:	Pig
Source:	E. coli
Accession:	P26889 (A115-P267)
Gene ID:	397122
Molecular Weight:	Approximately 18.51 kDa

PROPERTIES

AA Sequence	M A N V Q S M E C K L Q D K D H K S L V L A G P H M L K A L H L L T G D L K R E V V F C M S F V Q G D D S N N K I P V T L G I K G K N L Y L S C V M K D N T P T L Q L E D I D P K R Y P K R D M E K R F V F Y K T E I K N R V E F E S A L Y P N W Y I S T S Q A E Q K P V F L G N S K G R Q D I T D F T M E V L S P
Biological Activity	Measure by its ability to induce D10.G4.1 cells proliferation. The ED ₅₀ for this effect is <3 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-1 beta Protein is a potent pro-inflammatory cytokine that was initially discovered as a major endogenous pyrogen. It triggers various immune responses, including the synthesis of prostaglandins, recruitment and activation of neutrophils, activation and production of cytokines by T-cells, activation of B-cells leading to antibody production, and stimulation of fibroblast proliferation and collagen production. Additionally, it plays a role in promoting Th17 differentiation of T-cells and synergizes with IL12 to induce IFNG synthesis by Th1 cells. IL-1 beta Protein also contributes to angiogenesis by synergistically inducing VEGF production along with TNF and IL6. Moreover, it is involved in the transduction of inflammation downstream of pyroptosis, where its mature form is specifically released into the extracellular space through</p>
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the gasdermin-D (GSDMD) pore. IL-1 beta Protein also interacts with African swine fever virus (ASFV) protein L83L during microbial infections.

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

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