

HumanKine[®] recombinant human IL-1 beta protein

Animal Component-Free

Human cell expressed

Tag-Free

Endotoxin Free

Product Description

Animal-free Recombinant Human IL-1 beta expressed in human 293 cells has a very high activity with a typical EC₅₀ of ≤0.1 ng/mL using a bioassay to measure stimulation of the proliferation of mouse D10S cells. In comparison with the E. coli expressed protein, IL-1 beta is 50% more potent promoting human CD4+ T cell differentiation into Th17 cells. This cytokine is important for inflammatory responses. It is also involved in a variety of cellular activities which includes cell differentiation, proliferation, and apoptosis. It is produced in a serum-free, chemically defined media.

Alternative Names Catabolin, IL 1, IL 1 beta, IL1 BETA, IL-1 beta, IL1B, IL-1b, IL1beta, IL1F2, Interleukin 1 beta, interleukin 1, beta

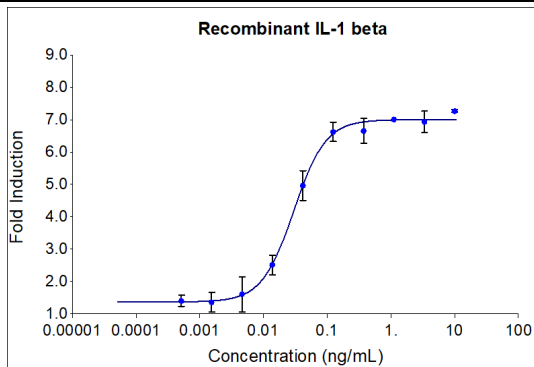
Source Human Embryonic Kidney cells (HEK293). HEK293-derived IL-1 beta protein

Species Reactivity human,mouse

Specifications

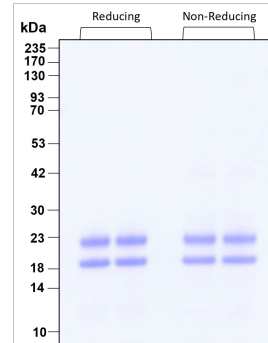
Test	Method	Specification
Activity (EC ₅₀)	Dose-dependent stimulation of the proliferation of mouse D10S cells	0.8-4.0 ng/mL in an HEK293 reporter cell line, Typically ≤ 0.05 ng/mL in D10.G4.1 cells
Molecular Mass	SDS-PAGE	20 and 23 kDa reduced and non-reduced, monomer, glycosylated
Purity	SDS-PAGE	>95%
Endotoxin	LAL	<1 EU/μg

Activity Data



Recombinant human IL-1 beta (HZ-1164) stimulates dose-dependent proliferation of the D10.G4.1 mouse helper T lymphocyte cell line. Cell number was quantitatively assessed by PrestoBlue[®] Cell Viability Reagent. D10.G4.1 cells were treated with increasing concentrations of recombinant IL-1 beta for 72 hours. The EC₅₀ was determined using a 4-parameter non-linear

SDS-PAGE



Preparation	
Shipping Temperature	ambient temperature
Formulation	1x PBS, See Certificate of Analysis for details
Reconstitution	Briefly centrifuge the vial before opening. It is recommended to reconstitute the protein to 0.2 mg/mL in sterile 1xPBS pH 7.4 containing 0.1% endotoxin-free recombinant human serum albumin (HSA). Gently swirl or tap vial to mix.

Stability and Storage	Product Form	Temperature Conditions	Storage Time (From Date of Receipt)
	Lyophilized	-20°C to -80°C	Until Expiry Date
	Lyophilized	Room Temperature	2 weeks
	Reconstituted as per CofA	-20°C to -80°C	6 months
	Reconstituted as per CofA	4°C	1 week
Avoid repeated freeze-thaw cycles.			

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