

HumanKine[®] IL-18 (Recombinant Human)



Animal Component-Free	Human cell expressed	Tag-Free	Endotoxin Free
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Product Description

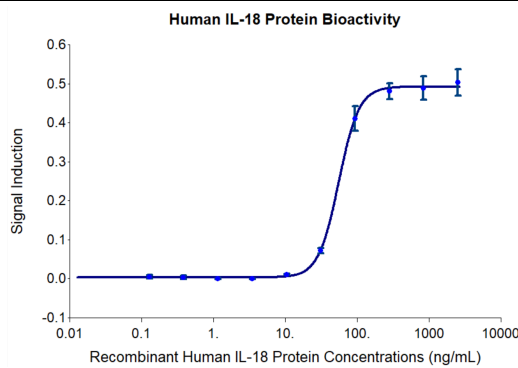
Human Interleukin-18 (IL-18) is a pro-inflammatory cytokine from the IL-1 family and a critical mediator of innate and adaptive immunity. IL-18 functions primarily by inducing IFN- γ production, supporting Th1 polarization, enhancing NK-cell cytotoxicity, and cooperating with IL-12 in pathogen defense and inflammatory signaling. IL-18 is broadly expressed as an inactive precursor in various tissues and cell types, especially those involved in immune surveillance and barrier defense. IL-18 is synthesized as pro-IL-18 and requires caspase-1 (inflammasome) processing for activation. This two-step regulation restricts its biological activity to inflammatory contexts while allowing broad basal expression.

Alternative Names	IGIF, IL1F4
Source	Human Embryonic Kidney cells (HEK293). HEK293-derived IL-18 protein

Specifications

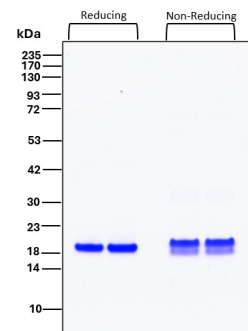
Test	Method	Specification
Activity	Dose-dependent release of IFN-gamma in human KG-1 cell line.	20 -160 ng/mL
Molecular Mass	SDS-PAGE	19 kDa reduced, 19-21 kDa non-reduced, monomer, non-glycosylated
Purity	SDS-PAGE	>95%
Endotoxin	LAL	<1 EU/ μ g

Activity Data



Recombinant human IL-18 (Cat no: HZ-1340) induces dose-dependent release of IFN-gamma in the KG-1 human cell line. KG-1 cells were treated with increasing concentration of recombinant IL-18 for 48 hours before supernatant collection. The supernatant was tested for IFN gamma using Proteintech's AuthentiKine[™] Human IFN-gamma ELISA Kit (KE00146). The EC50 was determined using a 4-parameter non-linear

SDS-PAGE



Preparation	
Shipping Temperature	ambient temperature
Formulation	1X PBS pH 7.4 + 0.5% CHAPS
Reconstitution	Briefly centrifuge the vial before opening. It is recommended to reconstitute the protein to 0.2 mg/mL in sterile 1x PBS 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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