

## Catalog Number: HZ-1322

## Data Sheet



## HumanKine® recombinant human IGF-I protein

Animal Component-Free

Human cell expressed

Tag-Free

**Endotoxin Free** 

## Product Description The Insulin like growth factor-1, also known as Somatomedin-C is a growth factor which is structurally related to insulin and is an important regulator of growth and differentiation in various tissues and cell systems. Human IGF-1 is synthesized as two precursor isoforms with N- and alternate C-terminal propeptide. The two precursor isoforms are differentially expressed by various tissues. The proteolytic cleavage of the N- and C-terminal regions results in the mature IGF-1 protein which is identical between isoforms. IGF-1 binds to IGF-1 receptor and induces receptor autophosphorylation. This further phosphorylates Insulin receptor substrate -1 (IRS-1) and activates various downstream signaling pathways including the PI3-AKT, MAPK etc. (PMID: 17354613, 17113337, 29535161) Alternative Names H-IGF-1, IGF, IGF-IA, IGF-IB, IGF1A, IGFIa, Insulin like growth factor, insulin-like growth factor 1 (somatomedin C), Insulin-like growth factor I, insulin-like growth factor IB, M-IGF-1, Mechano growth factor, MGF, OTTHUMP00000195084, R-IGF-1, Somatomedin C, Somatomedin C,

Numes	C					
Source	Human Embryonic Kidney cells (HEK293). HEK293-derived IGF-I protein					
Species Reactivity	human					
Constitue and the second se						

specifications					
Test	Method	Specification			
Activity	Dose-dependent proliferation of the MCF-7 human breast cancer cell line.	2-14 ng/mL			
Molecular Mass	SDS-PAGE	9-10 kDa reduced and non-reduced, monomer, non- glycosylated			
Purity	SDS-PAGE	>95%			
Endotoxin	LAL	<1 EU/ug			



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Preparation				
Shipping Temperature	ambient temperature			
Formulation	ז ה 50mM Acetate pH 4.0			
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.			

	Product Form	Temperature Conditions	Storage Time (From Date of Receipt)
	Lyophilized	-20°C to -80°C	Until Expiry Date
Stability and Storage	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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