

HumanKine[®] IGF-I (Recombinant Human)



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

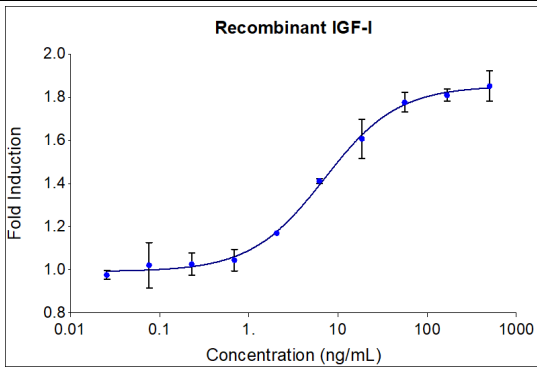
The Insulin like growth factor-1, also known as Somatomedin-C is a growth factor which is structurally related to insulin and is an important regulator of growth and differentiation in various tissues and cell systems. Human IGF-1 is synthesized as two precursor isoforms with N- and alternate C-terminal 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-I, IGF-IA, IGF-IB, IGF1A, IGF1a, 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
Source	Human Embryonic Kidney cells (HEK293). HEK293-derived IGF-I protein

Specifications

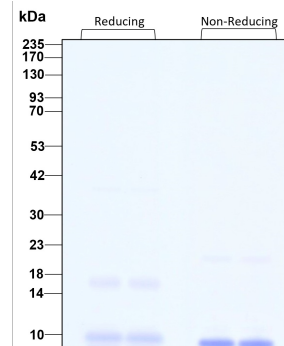
Test	Method	Specification
Activity	Dose-dependent proliferation of the MCF-7 human breast cancer cell line.	2-14 ng/mL EC50
Molecular Mass	SDS-PAGE	9-10 kDa reduced and non-reduced, monomer, non-glycosylated
Purity	SDS-PAGE	>95%
Endotoxin	LAL	<1 EU/μg

Activity Data



Recombinant human IGF-I (Cat no: HZ-1322) stimulates dose-dependent proliferation of the MCF-7 human breast cancer cell line. Cell number was quantitatively assessed by PrestoBlue[®] Cell Viability Reagent. MCF-7 cells were treated with increasing concentrations of recombinant IGF-I for 96 hours. The EC50 was determined using a 4-parameter non-linear

SDS-PAGE



Preparation	
Shipping Temperature	ambient temperature
Formulation	50mM Acetate pH 4.0
Reconstitution	Briefly centrifuge the vial before opening. It is recommended to reconstitute the protein in sterile 1x PBS pH 7.4 containing 0.1% endotoxin-free recombinant human serum albumin (HSA).

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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