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IGF1
Human Recombinant IGF-I, Media Grade

Catalog No.	IU100	**Quantity:**	100 µg
	IM001		1 mg
	IM005		5 mg

Alternate Names: Insulin-like growth factor I, Somatomedin-C, Mechano growth factor, MGF

Description: **Media grade human IGF-I is a high quality reagent at an economical cost to enable studies where higher quantities of peptide are required.**

Human insulin-like growth factor-I (IGF-I) is a single chain 70 amino acid polypeptide that shares structural homology with insulin and human IGF-II. IGF-I plays a critical role in growth, differentiation and development via autocrine, paracrine and endocrine mechanisms. It is a mitogen and also has effects on cell migration and differentiation. IGF-I binds to the type I IGF receptor and most of its actions are probably mediated through inducing signal transduction via this receptor. IGF-I also binds to each of the six IGF binding proteins (IGFBPs). This binding also regulates the biological function of IGF-I. IGF-I is highly conserved across species which suggests an important role for the peptide. Human IGF-I is present in high concentrations in normal adult human serum in a complex with IGFBP-3 and the acid-labile subunit (ALS) and mediates many of the actions of Growth Hormone. IGF-I is a regulator of metabolism and is also implicated in the pathophysiology of cancer, diabetes and obesity.

UniProt ID: P05019

Gene ID: 3479

Source: Expressed in *E. coli*

Molecular Weight: 7649 Da

Formulation: Lyophilized from 0.1 M acetic acid and stored under dry N_2 at a slight vacuum.

Purity: >85% by HPLC analysis

Endotoxin Level: < 0.1 EU/µg.

Biological Activity: Stimulation of protein synthesis in rat L6 myoblasts: ED_{50} < 30 ng/ml.

Amino Acid Sequence: N-terminal 5 residues confirmed

Reconstitution: See Protocol 1000, Handling of IGF-I, IGF-II and IGF analogs.

Application Notes:
Protocol 3002: Determination of IGF-I or IGF-II in a range of species by RIA
Protocol 3003 Procedure for Western Ligand blotting using iodinated IGF-I or IGF-II
Protocol 3004 Procedure for Western Ligand blotting using biotinylated IGF-I, IGF-II

Storage & Stability: Lyophilized product is stable for at least 2 years at 2-8°C.

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