IGF1
Recombinant Human IGF-I, GMP Grade

Catalog No.	CRI510A-GMP CRI510B-GMP	**Quantity:**	5 µg 100 µg
Alternate Names:	Insulin-like growth factor I, IGF-I, Mechano growth factor, MGF, Somatomedin-C		
Description:	Insulin-like growth factors (IGFs) belonging to the insulin gene family, are mitogenic polypeptides that stimulate the proliferation and survival of various cell types including muscle, bone, and cartilage tissue *in vitro*. The IGFs are similar in structure and function to insulin, but have a much higher growth-promoting activity than insulin. IGF-1 is produced primarily by the liver as an endocrine hormone as well as in target tissues in a paracrine/autocrine fashion. The production of IGF-1 is stimulated by growth hormone (GH) and can be retarded by undernutrition, growth hormone insensitivity, lack of growth hormone receptors, or failures of the downstream signaling pathway post GH receptor including SHP2 and STAT5B. Mature human IGF-1 shares 94% and 96% aa sequence identity with mouse and rat IGF-1, respectively, and exhibits cross-species activity. **Manufacturing and testing of this product complies with ICH Q7 guidelines.**		
UniProt ID:	P05019		
Source:	*E. coli*		
Molecular Weight:	~7.6 kDa (70 aa) monomer		
Formulation:	Lyophilized from sterile-filtered PBS, pH 7.0		
Purity:	> 98% by SDS-PAGE and HPLC		
Endotoxin Level:	< 0.01EU/µg as determined by LAL method.		
Contaminants:	< 0.05% host cell protein by ELISA < 20 ng/ml host cell DNA by qPCR Mycoplasma - negative Virus - negative		
Biological Activity:	$ED_{50,}$ < 2.0 ng/ml, determined by dose-dependent cell proliferation assay using serum free human MCF-7 cells.		
Specific Activity:	> 5.0×10^5 U/mg		
Amino Acid Sequence:	GPETLCGAEL VDALQFVCGD RGFYFNKPTG YGSSSRRAPQ TGIVDECCFR SCDLRRLEMY CAPLKPAKSA		
Reconstitution:	**Centrifuge the vial prior to opening.** Reconstitute with sterile water at 0.1-1.0 mg/ml by gently pipetting to wash down the sides of the vial to ensure full recovery of the protein into solution. **Do not vortex.** Allow a few minutes for complete solubilization.		
Storage & Stability:	Lyophilized vial is shipped at ambient temperature. Immediately upon receipt, store unopened vial at -20°C (manual defrost freezer) or -80°C for up to 36 months. Upon reconstitution, prepare working aliquots and store at -20°C (manual defrost freezer) or -80°C. It is recommended that a carrier protein such as 0.1% HSA or BSA is added for long term storage. For short term storage reconstituted material is stable for 4-6 weeks when stored at 2-8°C. **Avoid repeated freeze-thaw cycles.**		

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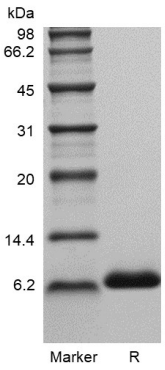
Applications: For *ex vivo* use only. Not for injection or diagnostic procedures. The safety and efficacy of this product in diagnostic or other clinical uses has not been established.

Country of Origin: USA

SDS-PAGE GMP Grade rhIGF-I
Single Prominent band at ~7.6 kDa



NOT FOR HUMAN USE. FOR RESEARCH ONLY. NOT FOR DIAGNOSTIC OR THERAPEUTIC USE.

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