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IGF1
Recombinant Human LR3 Insulin-like Growth Factor 1

Catalog No.	LRM001	**Quantity:**	1.0 mg
	LRM005		5.0mg
	LRM010		10 mg
	LRM020		20 mg

Alternate Names: Lr3 IGF-1, LR3 IGF, IGF LR3, LArg3 IGF-1

Description: IGF-1 belongs to the insulin gene family and is a mitogenic polypeptide growth factor that stimulates the proliferation and survival of various cell types, including muscle, bone, and cartilage tissue.

LR3 IGF-1 is a long-term acting analog of human IGF-1 specifically designed and manufactured for mammalian cell culture to support large-scale manufacturing of recombinant biopharmaceuticals. It differs from native IGF-1 in that it possesses an arginine instead of a glutamic acid at the third position in its amino acid sequence ("arginine 3"), and also has an additional 13 amino acids at N-terminus (MFPAMPLLSLFVN) ("long"), for a total of 83 amino acids (relative to the 70 of IGF-1).

Gene ID: Analog of 3479

Source: *E. coli*

Molecular Weight: ~9.1 kDa

Formulation: Lyophilized from sterile-filtered 20 mM phosphate buffer, pH 7.2.

Purity: >98% by SDS-PAGE analysis, >90% by RP-HPLC

Endotoxin Level: <0.01 EU/µg

Biological Activity: ED_{50} ~0.3-1.5 ng/ml, determined in a serum-free cell proliferation assay using human MCF-7 cells
ED_{50} <10 ng/ml, determined by the stimulation of protein synthesis in rat L6 myoblasts.

Specific Activity: > 6.7 × 105 IU/mg, by serum-free cell proliferation assay using human MCF-7 cells
>1.0 x 10^5 IU/mg, by the stimulation of protein synthesis in rat L6 myoblasts

Amino Acid Sequence: MFPAMPLSSL FVNGPRTLCG AELVDALQFV CGDRGFYFNK PTGYGSSSRR APQTGIVDEC CFRSCDLRRL EMYCAPLKPA KSA

Reconstitution: **Centrifuge vial prior to opening.** Add sterile distilled water or aqueous buffer containing 0.1% BSA to a concentration of 0.1-1.0 mg/mL. Further dilutions should be made in appropriate buffered solutions.

Storage & Stability: Upon receipt, the lyophilized protein is stable for one year when stored at -20 °C to -80 ° C. When reconstituted under sterile conditions, product is stable for one month at 2-8 °C, or for 3 months when stored in working aliquots at -20 °C to -80 °C.
Avoid repeated freeze-thaw cycles.

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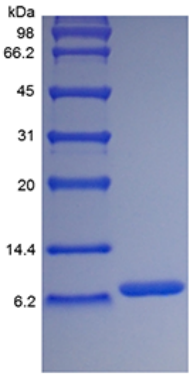
SDS-PAGE



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