

IGF1

Recombinant Human LR3 Insulin-like Growth factor-1

Catalog No.	LRU100	Quantity:	100 µg
	LRM001		1.0 mg
	LRM005		5.0 mg

Description: Insulin-like growth factor-1 (IGF1) is the principal hormonal mediator of statural growth. Under normal circumstances, growth hormone (GH) binds to its receptor in the liver, and other tissues, and stimulates the synthesis/secretion of IGF1. In target tissues, the Type 1 IGF receptor, which is homologous to the insulin receptor, is activated by IGF1, leading to intracellular signaling which stimulates multiple processes leading to statural growth. The metabolic actions of IGF1 are in part directed at stimulating the uptake of glucose, fatty acids, and amino acids so that metabolism supports growing tissues. The LR3 is a long-term analog of human IGF1, specifically designed and manufactured for mammalian cell culture to support large-scale manufacturing of recombinant biopharmaceuticals.

Recombinant Human LR3 IGF1 is a single, non-glycosylated polypeptide chain containing 83 amino acids.

- Source:** *E. coli*
- Molecular Weight:** ~9.1 kDa
- Formulation:** Lyophilized from a 0.2 µm sterile filtered solution in 20 mM PB, pH 7.2 + 4% Mannitol.
- Purity:** >95% by SDS-PAGE and HPLC
- Endotoxin Level:** <5 EU/100 µg
- Biological Activity:** Fully biologically active when compared to standard. The ED₅₀ as determined by the stimulation of protein synthesis in L6 myoblasts is < 10 ng/ml.
- Amino Acid Sequence:** MFPAMPLSSL FVNGPRTLCLG AELVDALQFV CGDRGFYFNK PTGYGSSRR APQTGIVDEC CFRSCDLRRL EMYCAPLKPA KSA
- Reconstitution:** **Centrifuge vial prior to opening.** Reconstitute in sterile distilled water or aqueous buffer to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at <-20°C. Further dilutions should be made in appropriate buffered solutions.
- Storage & Stability:** Stable at 2-8°C, but best kept desiccated at -20°C for long term storage. Upon reconstitution, stable for up to one week at 2-8°C. For maximal stability, apportion the reconstituted preparation into working aliquots and store at -20°C to -70°C. **Avoid repeated freeze/thaw cycles.**

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