

Active Recombinant Human IGF-1 LR3 Protein

Cat. No. IGF1-23H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	The LR3 is a long-term analog of human IGF-1, specifically designed and manufactured for mammalian cell culture to support large-scale manufacturing of recombinant biopharmaceuticals. Recombinant Human LR3 Insulin Like Growth Factor-1 produced in E. coli is a single, non-glycosylated, polypeptide chain containing 83 amino acids and having a molecular mass of 9.1 kDa.
Species	Human
Source	E.coli
Description	IGF-1 (Insulin-like growth factor-1) is a major hormonal mediator of statural growth. Under regular circumstances, GH (growth hormone) binds to its receptor in the liver, and other tissues, and stimulates the synthesis/secretion of IGF-1. In target tissues, the Type 1 IGF receptor, that is homologous to the insulin receptor, is activated by IGF-1, leading to intracellular signaling which stimulates multiple pr centigradeesses leading to statural growth. IGF-1 metabolic actions are partly directed at stimulating the uptake of glucose, fatty acids, and amino acids so that metabolism supports growing tissues.
Form	Sterile Filtered White lyophilized (freeze-dried) powder.
AASequence	MFPAMPLSSLFVNGPRTLCAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGI VDECCFRSCDLRRLEMYCAPLKPAKSA.
Molecular Mass	9.1 kDa

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Bio-activity	The ED50 as determined by the stimulation of protein synthesis in L6 myoblasts is less than 10 ng/mL, corresponding to a specific activity of 100,000 units/mg.
Purity	Greater than 98.0% as determined by SDS-PAGE.
Note	Our products are furnished for LABORATORY RESEARCH USE ONLY. The product may not be used as drugs, agricultural or pesticidal products, food additives or household chemicals.
Storage	Lyophilized LR3 IGF1 although stable at room temperature for 3 weeks, should be stored desiccated below -18 centigrade. Upon reconstitution the LR3 IGF1 should be stored at 4 centigrade between 2-7 days and for future use below -18 centigrade. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.
Storage Buffer	Lyophilized from a 0.2 µm filtered concentrated solution in 20mM PB, pH 7.2.
Solubility	It is recommended to reconstitute the lyophilized LR3 IGF1 in sterile 18M-cm H2O at a concentration of 100 µg/mL, which can then be further diluted to other aqueous solutions.
Shipping	Shipped at Room temperature.

GENE INFORMATION

Gene Name	IGF1 insulin-like growth factor 1 (somatomedin C) [Homo sapiens (human)]
Official Symbol	IGF1
Synonyms	IGF1; insulin-like growth factor 1 (somatomedin C); insulin-like growth factor 1; IGF1A; MGF; IGF-IA; IGF-IB; somatomedin-C; mechano growth factor; insulin-like

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growth factor I; insulin-like growth factor IA; insulin-like growth factor IB; IGFI; IGF-I;

Gene ID	3479
mRNA Refseq	NM_000618
Protein Refseq	NP_000609
MIM	147440
UniProt ID	P05019

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