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# SCIENTIFIC

# LR3 IGF1 Human

**Description:** 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 9.1kDa.

**Synonyms:**R3 IGF1, R3 IGF-1, R3IGF1, R3IGF-1, LONG IGF1, LONG IGF-1, LONG R3 IGF1, LONG R3 IGF-1, LONG R3 IGF-1, LONG R3 IGF-1.

Source: Escherichia Coli.

Physical Appearance: Sterile Filtered White lyophilized (freeze-dried) powder.

# Amino Acid Sequence:

MFPAMPLSSLFVNGPRTLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIV DECCFRSCDLRRLEMYCAPLKPAKSA.

Purity: Greater than 95.0% as determined by SDS-PAGE and HPLC.

# Formulation:

Lyophilized from a 0.2

# Stability:

Lyophilized LR3 IGF1 although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution the LR3 IGF1 should be stored at 4°C between 2-7 days and for future use below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

# Usage:

NeoBiolab's 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.

# Solubility:

It is recommended to reconstitute the lyophilized LR3 IGF1 in sterile 18M-cm H2O at a concentration of 100

# Introduction:

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 processes 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.

# **Biological Activity:**

The ED50 as determined by the stimulation of protein synthesis in L6 myoblasts is less then 1ng/ml, corresponding to a specific activity of 1,000,000 units/mg.









Catalog #:CYPS-029

For research use only.





