

DATASHEET

Version 2016-08-02

LR³-IGF-I (Media Grade), Human**Cat. No.:** Z03090-1**Size:** 1 mg**Synonyms:** LR³ Insulin-like Growth Factor-I (LR³-IGF-I) (Media Grade), human; LR³-IGF-I;**Description:**

Human LR³ Insulin-like Growth Factor-I (LR³-IGF-I) is an 83 amino acid analog of human IGF-I comprising the complete human IGF-I sequence with the substitution of an Arg for the Glu at position 3 (hence R³), and a 13 amino acid extension peptide at the N-terminus. Scientists have engineered this analog with the express purpose of increasing biological activity. Human LR³-IGF-I is significantly more potent than human IGF-I in vitro. The enhanced potency is due to the markedly decreased binding of human LR³-IGF-I to IGF binding proteins which normally inhibit the biological actions of IGFs.

GenScript **LR³ Insulin-like Growth Factor-I (LR³-IGF-I) (Media Grade), human**, produced in *E. coli*, is a single, non-glycosylated, polypeptide chain containing 83 amino acids and having a molecular mass of 9,111 Da.

Amino Acid Sequence:

The sequence of the first five N-terminal amino acids has been found to be Met-Phe-Pro-Ala-Met.

Source: *E. coli***Species:** Human**Biological Activity:** Fully biologically active when compared

to standard. The ED50 as determined by the stimulation of protein synthesis using rat L6 myoblasts is less than 10 ng/ml, corresponding to a specific activity of > 1.0 × 10⁵ IU/mg.

Molecular Weight: 9,111 Da**Formulation:** Lyophilized from a 0.2 μm filtered concentrated solution in 20 mM PB, pH 7.2.**Reconstitution:** We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1 % BSA 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.**Purity:** >98 % by SDS-PAGE analyses. 90 % by RP-HPLC analyses**Endotoxin Level:** The endotoxin level of GenScript Recombinant Human LR³-IGF-I is below 0.1 ng/μg (1 IEU/μg) of LR³-IGF-I.**Storage:** Although GenScript lyophilized LR³-IGF-I remain stable at room temperature for three weeks, it is best stored desiccated below -18°C. After reconstitution, GenScript LR³-IGF-I may be stored at 4°C for up to seven days and below -18°C for longer periods. For long-term storage, it is recommended that a carrier protein (0.1% HSA or BSA) be added. Please avoid freeze-thaw cycles.

*For Research Use Only *