Product Information

R^3 IGF-I, Human

Recombinant analog expressed in *E. coli*

CAS RN 139659-92-0

Synonym: Insulin-like growth factor I

I1146

Product Description

R^3 IGF-I is a recombinant analog of insulin-like growth factor containing the complete human IGF-I amino acid sequence with substitution of Arg for Glu^3. It was developed as an inexpensive, high quality potent analog of IGF for use as a growth factor supplement for serum-free or low serum cell culture. Recombinantly produced in *E. coli* using a patented expression system, the peptide is harvested from cells in inclusion bodies, which are dissolved and desalted. The active molecule is properly folded under oxidizing conditions and then purified by several liquid chromatography steps. The product is lyophilized from 0.1 M acetic acid and is shown to proliferate Chinese hamster ovary CHO cells at an ED_{50} of 10 ng/mL.

Molecular mass: 7,676 Da

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Safety Data Sheet for information regarding hazards and safe handling practices.

Preparation Instructions

Prepare a stock solution of 1 mg/mL by adding 0.1 mL of 10 mM HCl to the vial. Stock solutions of peptide can be stored for at least 3 months at −20 °C or −70 °C. Avoid repeated freeze-thaw cycles.

For concentrations of < 1 mg/mL in buffer, a carrier protein should be added to minimize adsorption of the peptide to plastic or glass surfaces. Bovine serum albumin (BSA) at concentrations between 1-5 mg/mL is recommended as a carrier protein in serum-free conditions. A carrier protein is not necessary in serum-supplemented media. Up to 400 mL of buffer solution containing BSA, or serum-supplemented medium may be added to the stock solution in the vial and mixed. Long-term storage of solutions of < 1 mg/mL is not recommended.

Additional Handling Suggestions

- Do not add the peptide to low protein or protein free media prior to filter sterilization
- Use a low protein binding membrane for filter sterilization
- Filter sterilize solutions at a concentration of 1 mg/mL or greater if no carrier protein is present

Storage and Stability

Store the product at 2 to 8 °C.

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