Technical Data Sheet

Recombinant Rat Insulin-Like Growth Factor (rRtIGF-1)

Rat IGF-1

Insulin-like growth factor-1 (IGF-1) 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 IGF-1. In target tissues, the Type 1 IGF receptor, which is homologous to the insulin receptor, is activated by IGF-1, leading to intracellular signaling which stimulates multiple processes leading to statural growth. The metabolic actions of IGF-1 are in part directed at stimulating the uptake of glucose, fatty acids, and amino acids so that metabolism supports growing tissues.

Catalog Number:	RC256-12
Source:	*Escherichia coli.*
Molecular Weight:	Approximately 7689 Da, a single non-glycosylated polypeptide chain containing 70 amino acids.
Quantity:	10ug/50ug/1.0mg
Protein Sequence:	GPETLCGAEL VDALQFVCGP RGFYFNKPTG YGSSIRRAPQ TGIVDECCFR SCDLRRLEMY CAPLKPTKSA
Purity:	>95% by SDS-PAGE and HPLC analyses.
Biological Activity:	Fully biologically active when compared to standard. The ED50 as determined by a cell proliferation assay using FDC-P1 cells is less than 2.0 ng/ml, corresponding to a specific activity of $\geqslant 5 \times 10^5$ units/mg.
Formulation:	Lyophilized from a 0.2μm filtered concentrated solution in 20mM PBS, pH 7.0.
Endotoxin:	Less than 1EU/μg of rRtIGF-1 as determined by LAL method.
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 $\leq$-20°C. Further dilutions should be made in appropriate buffered solutions.

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Storage: This lyophilized preparation is stable at 2-8°C, but should be kept at -20°C for long term storage, preferably desiccated. Upon reconstitution, the preparation is 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.

Usage: This material is offered by Bio Basic Inc for research, laboratory or further evaluation purposes. NOT FOR HUMAN USE.

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