

# PRODUCT DATA SHEET



Bioworld Technology, Inc.

## Recombinant IGF-I, Human

Catalog Number: BK0084-1mg

Source: Escherichia coli.

Quantity: 1mg

### Description:

Insulin-like growth factor I (IGF-I) also known as Somatomedin C is a hormone similar in molecular structure to insulin. Human IGF-I has two isoforms (IGF-IA and IGF-IB) which is differentially expressed by various tissues. Mature human IGF-I respectively shares 94% and 96% aa sequence identity with mouse and rat IGF-I. Both IGF-I and IGF-II (another ligand of IGF) can signal through the IGF-I receptor (IGFIR), but IGF-II can alone bind the IGF-II receptor (IGFIIR/Mannose-6-phosphate receptor). IGF-I plays an important role in childhood growth and continues to have anabolic effects in adults. Recombinant human Insulin-like growth factor I (rhIGF-I) produced in E.coli is a single non-glycosylated polypeptide chain containing 70 amino acids. A fully biologically active molecule, rhIGF-I has a molecular mass of 7.7 kDa analyzed by reducing SDS-PAGE and is obtained by proprietary chromatographic techniques at GenScript.

### Molecular Weight:

7.7 kDa, observed by reducing SDS-PAGE.

### Purity:

> 95% by SDS-PAGE and HPLC analyses.

### Biological Activity:

ED50 < 5 ng/ml, measured by a cell proliferation assay using FDC-P1 cells, corresponding to a specific activity of > 2.0 × 10<sup>5</sup> units/mg.

### Physical Appearance:

Sterile Filtered White lyophilized (freeze-dried) powder.

### Formulation:

Lyophilized after extensive dialysis against PBS.

### AA Sequence:

GPETLCGAELVDALQFVCGDRGFYFNKPTGYG-SSRRRAPQTGIVDECCFRSCDLRRLEMY-CAPLKPAKSA

### Endotoxin:

< 0.2 EU/μg, determined by LAL method.

### Reconstitution:

Reconstituted in ddH<sub>2</sub>O at 100 μg/ml.

### Storage:

Lyophilized recombinant human Insulin-like growth factor I (rhIGF-I) remains stable up to 6 months at -80 °C from date of receipt. Upon reconstitution, rhIGF-I should be stable up to 2 weeks at 4 °C or up to 3 months at -20 °C.

### Usage:

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