

# PRODUCT DATA SHEET



Bioworld Technology, Inc.

## Recombinant IGF-I, Rat

Catalog Number: BK0086-50µg

Source: Escherichia coli.

Quantity: 50µg

### Description:

Insulin-like Growth Factor I (IGF-I) is a single chain 7 kDa growth-promoting polypeptide originally identified as somatomedin-c. It belongs to the IGF family of peptides, which also includes IGF-II and insulin. The gene expression of IGF-I is mainly regulated by Growth Hormone, and IGF-I executes its functions via signaling through transmembrane tyrosine receptors (IGF Receptors). Most circulating IGF-I is associated with the IGF Binding Protein 3 (IGFBP-3), and the IGFBPs may inhibit the actions of IGFs by competing against the IGF Receptors. IGF-I is active in post-natal and adult animals, and is crucial for somatic growth, as IGF-I null mice show marked retardation in utero. IGF-I is involved in the carcinogenesis, and related to the prostate cancer as well. Recombinant rat Insulin-like Growth Factor I (rrIGF-I) produced in E.coli is a single non-glycosylated polypeptide chain containing 71 amino acids. A fully biologically active molecule, rrIGF-I has a molecular mass of 7.8 kDa analyzed by reducing SDS-PAGE and is obtained by proprietary chromatographic techniques at GenScript.

### Molecular Weight:

7.8 kDa, observed by reducing SDS-PAGE.

### Purity:

> 95% as analyzed by SDS-PAGE and HPLC.

### Biological Activity:

ED50 < 10 ng/mL, measured by a cell proliferation assay using FDCP-1 cells, corresponding to a specific

activity of > 1×10<sup>5</sup> units/mg.

### Physical Appearance:

Sterile Filtered White lyophilized (freeze-dried) powder.

### Formulation:

Lyophilized after extensive dialysis against PBS.

### AA Sequence:

MGPETLCG AELVDAL-  
QFVCGPRGFYFNKPTGYGSSIRRAPQTGIVDEC-  
CFRSCDLRRLEMYCAPLKPTKSA

### Endotoxin:

< 0.2 EU/µg, determined by LAL method.

### Reconstitution:

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

### Storage:

Lyophilized recombinant rat Insulin-like Growth Factor I (rrIGF-I) remains stable up to 6 months at -80 °C from date of receipt. Upon reconstitution, rrIGF-I remains stable up to 2 weeks at 4 °C or up to 3 months at -20 °C.

### Usage:

This material is offered by USA Bioworld biotech for research, laboratory or further evaluation purposes. For research use only.