

PRODUCT DATA SHEET



Bioworld Technology, Inc.

Recombinant IGF-I, Mouse

Catalog Number: BK0085-10 μ g

Source: Escherichia coli.

Quantity: 10 μ g

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 carcinogenesis, and related to prostate cancer as well. Recombinant mouse Insulin-like Growth Factor I (rmIGF-I) produced in E. coli is a single non-glycosylated polypeptide chain containing 71 amino acids. A fully biologically active molecule, rmIGF-I has a molecular mass of 7.8kDa 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% by SDS-PAGE analysis.

Biological Activity:

ED50 <10ng/mL, measured by a cell proliferation assay using FDC-P1 cells, corresponding to a specific

activity of >1 \times 10⁵ units/mg.

Physical Appearance:

Sterile Filtered White lyophilized (freeze-dried) powder.

Formulation:

Lyophilized after extensive dialysis against PBS.

AA Sequence:

MGPETLCGAELVDAL-
QFVCGPRGFYFNKPTGYGSSIRRAPQTGIVDEC-
CFRSCDLRRLEMYCAPLKPTKAA

Endotoxin:

< 0.2 EU/ μ g, determined by LAL method.

Reconstitution:

Reconstituted in ddH₂O at 100 μ g/mL.

Storage:

Lyophilized recombinant mouse Insulin-like Growth Factor I (rmIGF-I) remains stable up to 6 months at -80 $^{\circ}$ C from date of receipt. Upon reconstitution, rmIGF-I remains stable up to 2 weeks at 4 $^{\circ}$ C or up to 3 months at -20 $^{\circ}$ C.

Usage:

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