

PRODUCT DATA SHEET



Bioworld Technology, Inc.

Recombinant IGF-II, Human

Catalog Number: BK0087-1mg

Source: Escherichia coli.

Quantity: 1mg

Description:

Insulin-like Growth Factor II (IGF-II) is a single chain 7 kDa polypeptide, and shares a high degree of homology with insulin. During circulation in vivo, IGF-II is complexed to high affinity binding proteins, IGF Binding Proteins (IGFBP), which act as circulating reservoirs, transport IGF-II, and prolong the half life of IGF-II. The receptors of IGF-II (IGFRs) are transmembrane tyrosine receptors, and are heterotetrameric consisting of two α -subunits and two β -subunits. IGFRs execute their role via intracellular signaling molecules, such as IRS, shc, and PI3K. The functions of IGF-II include promoting cell survival, growth, proliferation, differentiation and motility. In particular, IGF-II promotes proliferation, inhibits death, and stimulates transformation in breast cancer cells. Recombinant human Insulin-like Growth Factor II (rhIGF-II) produced in E.coli is a single non-glycosylated polypeptide chain containing 68 amino acids. A fully biologically active molecule, rhIGF-II has a molecular mass of 7.6 kDa analyzed by reducing SDS-PAGE and is obtained by proprietary chromatographic techniques at GenScript.

Molecular Weight:

7.6 kDa, observed by reducing SDS-PAGE.

Purity:

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

Biological Activity:

ED50 < 20 ng/mL, measured by a cell proliferation assay using FDCP-1 cells, corresponding to a specific activity of $> 5 \times 10^4$ units/mg.

Physical Appearance:

Sterile Filtered White lyophilized (freeze-dried) powder.

Formulation:

Lyophilized after extensive dialysis against 25mM Tris, pH8.0.

AA Sequence:

MAYRPSETLCGGELVDLTLQFVCG-
DRGFYFSRPASRVSRRSRGIVEECCFRSCDLAL-
LETYCATPAKSE

Endotoxin:

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

Reconstitution:

Reconstituted in ddH₂O at 100 μ g/mL.

Storage:

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

Usage:

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