



User Manual

Insulinlike growth factor I (IGF-1) (Rat)

Cat. No. REGFP-09012

Description:

Insulinlike growth factor I, also known as somatomedin C, is the dominant effector of growth hormone and is structurally homologous to proinsulin. It shares 61% aa sequence identity with mature rat IGF-II. Circulating IGF-I is produced by hepatocytes, while local IGF-I is produced by many other tissues in which it has paracrine effects. IGF-I induces the proliferation, migration, and differentiation of a wide variety of cell types during development and postnatally.

Source:

Escherichia coli

Unit:

50 µg

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 < -20°C. Further dilutions should be made in appropriate buffered solutions.

Formulation:

Lyophilized from a 0.2 µm filtered concentrated solution in PBS, pH 7.4.

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.

Molecular Weight:

Approximately 7.7 kDa, a single non-glycosylated polypeptide chain containing 70 amino acid residues.

Endotoxin:

Less than 1 EU/μg of IGF-1 as determined by LAL method.

Usage:

This material is offered by Cyagen Biosciences for research, laboratory or further evaluation purposes. FOR RESEARCH USE ONLY. NOT INTENDED FOR ANY ANIMAL OR HUMAN THERAP EUTIC OR DIAGNOSTIC USE.

Biological Activity:

The ED50 determined by a cell proliferation assay using serum free human MCF-7 cells is less than 3 ng/mL, corresponding to a specific activity of $> 3.3 \times 10^5$ IU/mg.

Physical Appearance:

Sterile filtered white lyophilized (freeze-dried) powder.

AA Sequence:

GPETLCGAEL VDALQFVCGP RGFYFNKPTG YGSSIRRAPQ TGIVDECCFR
SCDLRRLEMY CAPLKPTKSA

Purity:

> 97% by SDS-PAGE and HPLC analyses.

Material Safety Data Sheets (MSDSs) are available upon request.

The Certificate of Analysis (COA), which provides detailed quality control information for each product, is also available at the Cyagen website.

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