DATASHEET
Version 20181206

IGF-I, Human

Cat. No.: Z03017-10

Size: 10.0 ug

Synonyms: IGF-IA; Somatamedin C

Description:

Insulin-like growth factor I (IGF-I) also known as Somatamedin 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.

Amino Acid Sequence:

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00001 GPETLCGAEL VDALQFVCGD RGFYFNKPTG YGSSSRRAPQ
00041 TGIVDECCFR SCDLRRLEMY CAPLKPAKSA
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Source: *E. coli*

Species: Human

Biological Activity: ED_{50} < 5 ng/ml, measured by a cell proliferation assay using FDC-P1 cells, corresponding to a specific activity of > 2.0×10^5 units/mg.

Molecular Weight: 7.7 kDa, observed by reducing SDS-PAGE.

Formulation: Lyophilized after extensive dialysis against PBS.

Reconstitution: Reconstituted in ddH_2O at 100 µg/ml.

Purity: > 95% by SDS-PAGE and HPLC analyses.

Endotoxin Level: < 0.2 EU/µg, determined by LAL method.

Storage: Lyophilized recombinant human Insulin-like growth factor I (rhIGF-I) remains stable up to 6 months at lower than -70°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.

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