

IGF1

Recombinant Human Insulin-like growth factor-1 (aa 49-118)

Catalog No. CSI15657A Quantity: 100 μg

CSI15657B 500 μg

Alternate Names: IGF1A, IGFI, insulin-like growth factor 1, MGF, IGF-IA, IGF-IB, somatomedin-C, mechano growth factor, insulin-like growth factor IA, insulin-like growth factor IB

Description: The Insulin-like growth factor-1 (IGF-1) is mitogenic polypeptide growth factors that

stimulate the proliferation and survival of various cell types including muscle, bone, and cartilage tissue in vitro. IGF-1 is predominantly produced by the liver, although a variety of tissues produce the IGFs at distinctive times. The IGF-1 belongs to the insulin gene family, which also contains insulin and relaxin. The IGF-1 is similar by structure and function to insulin, but has a much higher growth-promoting activity than insulin. This recombinant human IGF-I is globular protein containing 70 amino acids, and 3 intramolecular disulfide bonds. Recombinant IGF-1 was expressed in *E.coli* and purified by conventional chromatography, after refolding of the isolated inclusion bodies in a

renaturation buffer.

Concentration: 1 mg/ml (determined by Bradford assay)

GenelD: 3479

Protein Accession No: NP_000609

Source: E. coli

Molecular Weight: 7.7kDa (71aa), confirmed by MALDI-TOF

Formulation: Liquid. In phosphate-buffered Saline(pH 7.4) containing 10% glycerol

Purity: > 95% by SDS - PAGE

Biological Activity: The ED₅₀ for this effect is < 3.6 ng/ml. Measured in a cell proliferation assay using MCF7

cell.

Amino Acid Sequence: MGPETLCGAE LVDALQFVCG DRGFYFNKPT GYGSSSRRAP QTGIVDECCF

RSCDLRRLEM YCAPLKPAKS A

Activity Assay: 1. Cell line: MCF7 (human)

2. Maintenance Condition: RPMI 1640 containing 10% FBS

3. Assay Medium: serum free RPMI 1640

4. Cell Density: 2 x 10⁴ cells/well (96 well plate, final volume 100ul)

5. Serum Free Starvation: 24hr with RPMI16406. Incubation Time: 40 hr (after sample treatment)7. Concentration Range: 0.39ng/ml - 25ng/ml

8. Detection Method: BrdU assay

Storage & Stability: Can be stored at +4°C short term (1-2 weeks). For long term storage, aliquot and store at

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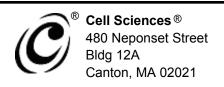
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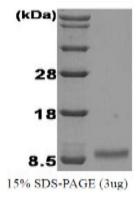
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