IGF1
Recombinant Human Insulin-like growth factor I / IGF-I

Catalog No.	CRH519A-2 CRH519B-2	**Quantity:**	100 µg 500 µg

Alternate Names: Insulin-like growth factor I, IGF-I, Mechano growth factor, MGF, Somatomedin-C

Description: IGF-I is a secreted protein which belongs to the insulin family comprised of insulin, relaxin, insulin-like growth factors I and II (IGF-I and IGF-II) and possibly the beta-subunit of 7S nerve growth factor, which represents a group of structurally related polypeptides whose biological functions have diverged. The IGFs, or somatomedins, constitute a class of polypeptides that have a key role in pre-adolescent mammalian growth. IGF-I expression is regulated by GH and mediates postnatal growth, while IGF-II appears to be induced by placental lactogen during prenatal development. IGF1 / IGF-I may be a physiological regulator of [1-14C]-2-deoxy-D-glucose (2DG) transport and glycogen synthesis in osteoblasts. IGF1 / IGF-I stimulates glucose transport in rat bone-derived osteoblastic (PyMS) cells and is effective at much lower concentrations than insulin, not only regarding glycogen and DNA synthesis but also with regard to enhancing glucose uptake. Defects in IGF1 / IGF-I are the cause of insulin-like growth factor I deficiency (IGF1 deficiency) which is an autosomal recessive disorder characterized by growth retardation, sensorineural deafness and mental retardation.

UniProt ID: P05019

Accession Number: NP_001104754.1

Protein Construction: A DNA sequence encoding the human IGF1 (Gly49-Ala118) was expressed.

Source: Yeast

Formulation: Lyophilized from sterile PBS,pH 7.4.
Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization.

Molecular Weight: The recombinant human IGF1 consists 70 amino acids and predicts a molecular mass of 7.7 kDa.

Purity: > 95 % as determined by SDS-PAGE.

Biological Activity: Measured in a cell proliferation assay using MCF-7 cells.
The ED50 for this effect is 15-60ng/mL.

Predicted N-terminal: Gly 49

Reconstitution: **Centrifuge vial prior to opening.** Add sterile distilled water to a concentration of 0.1 mg/mL and gently pipette the solution up and down the sides of the vial.
DO NOT VORTEX. Allow several minutes for complete reconstitution.

Storage & Stability: Stable for up to 1 year from date of receipt at -20°C to -80°C
After reconstitution, store working aliquots at -20°C to -80°C.
Avoid repeated freeze-thaw cycles.

Cell Sciences®
65 Parker Street
Unit 11
Newburyport, MA 01950

Toll Free: 888-769-1246
Phone: 978-572-1070
Fax: 978-992-0298

E-mail: info@cellsciences.com
Website: www.cellsciences.com

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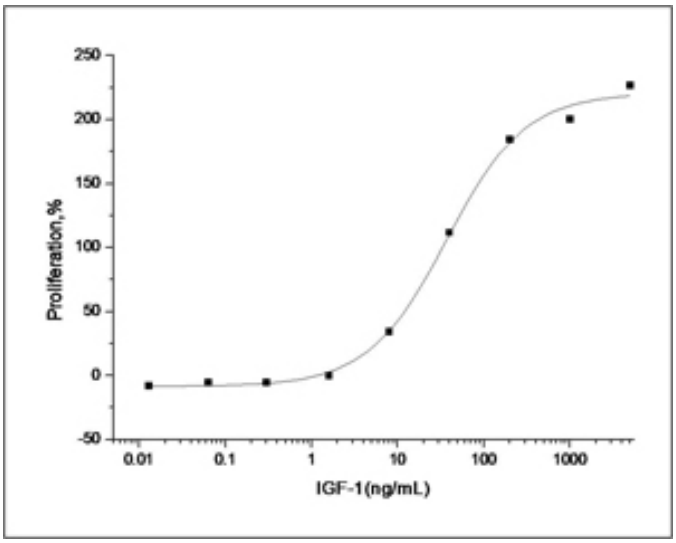
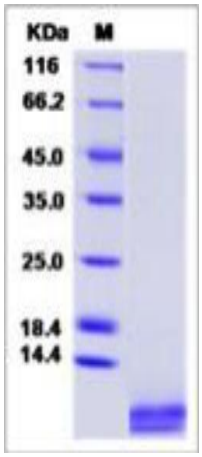


SDS-PAGE



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