

IGF1

Recombinant Human Insulin-like Growth Factor 1, IGF1

Catalog No.	CRI500A	Quantity:	20 µg
	CRI500B		100 µg
	CRI500C		1.0 mg

Alternate Names: IGF-IA, Somatomedin-C, Mechano growth factor

Description: Insulin-like growth factor 1 (IGF-I) is a member of the IGF family of mitogenic peptide growth factors, along with insulin and IGF-II. IGF-I stimulates proliferation and survival of various cell types including muscle, bone, and cartilage tissue. IGF-1 is produced primarily by the liver as an endocrine hormone as well as in target tissues in a paracrine/autocrine fashion. The production of IGF-1 is stimulated by growth hormone (GH). Both IGF-I and IGF-II signal through the tyrosine kinase type I receptor (IGF-IR). Proteolytic processing of inactive precursor proteins, which contain N-terminal and C-terminal propeptide regions, generates mature IGFs.

Recombinant human IGF-1 is a single, non-glycosylated polypeptide containing 70 amino acids and 3 intra-molecular disulfide bonds.

Gene ID: 3479

UniProtKB: P05019

Source: *E. coli*

Molecular Weight: Monomer, 7.7 kDa (70 aa)

Formulation: Lyophilized from a sterile filtered solution containing 0.1% Trifluoroacetic acid (TFA).

Purity: ≥95% by reducing and non-reducing SDS-PAGE

Endotoxin Level: ≤ 1.0 EU/µg

Biological Activity: ED₅₀ ≤ 10 ng/ml, determined by dose-dependent proliferation of mouse FDC-P1 cells. MCF-7 cell proliferation, typical ED₅₀ = 7-15 ng/ml.

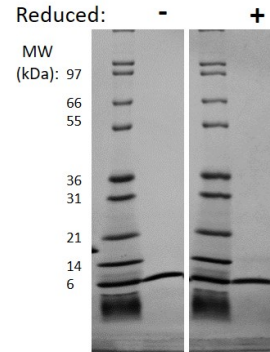
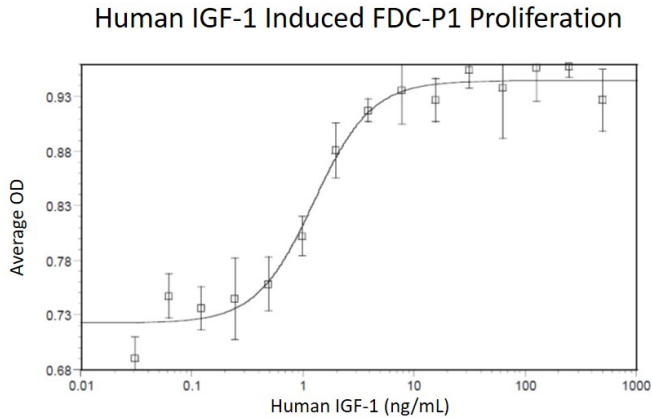
Specific Activity: ≥ 1.0 x 10⁵ U/mg

Amino Acid Sequence: GPETLCGAEL VDALQFVCGD RGFYFNKPTG YGSSRRAPQ TGIVDECCFR
SCDLRRLEMY CAPLKPAKSA

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



Storage & Stability: Upon receipt, store as supplied at -20°C to -80°C for up to one year. Upon reconstitution, the preparation is stable for up to one month at 2-8 °C, 3 months at -20°C to -80°C. For long term storage reconstitute in working aliquots containing 0.1% BSA and store at -80 °C. Avoid repeated freeze-thaw cycle.



Human IGF-I Gel

Figure: 1 ug in each lane (-) non-reducing conditions and (+) reducing conditions in a 4-20% Tris-Glycine gel, stained with Coomassie Blue. Human IGF-I has a predicted MW of 7.7 kDa.

NOT FOR HUMAN USE. FOR RESEARCH ONLY. NOT FOR DIAGNOSTIC OR THERAPEUTIC USE.