

Recombinant Human IGF1 protein

Cat. No. IGF1-524H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human IGF1 protein (67 a.a.) was expressed in Escherichia coli.
Species	Human
Source	E.coli
ProteinLength	67
Description	IGF-1 belonged to the insulin gene family, is a mitogenic polypeptide growth factor that stimulates the proliferation and survival of various cell types including muscle, bone, and cartilage tissue in vitro. DES(1-3)IGF-1, is a truncated variant of human IGF-1 with the tripeptide Gly-Pro-Glu absent from the N-terminus. It has been isolated from bovine colostrum, human brain and porcine uterus. The DES(1-3)IGF-1 probably results from post-translational cleavage of IGF-1. It has about 10-fold more potent than IGF-1 at stimulating hypertrophy and proliferation of cultured cells, a consequence of much reduced binding to IGF-binding proteins, in turn caused by the absence of the glutamate at position 3. Clinical opportunities for DES(1-3)IGF-1 have not yet been evaluated, but could apply in catabolic states as well as for the treatment of inflammatory bowel diseases.
Form	Lyophilized from a 0.2µm filtered concentrated solution in PBS, pH 7.4.
Bio-activity	Fully biologically active when compared to standard. The ED50 as determined by a cell proliferation assay using serum free human MCF-7 cells is less than 2 ng/ml, corresponding to a specific activity of > 5.0 ×

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

	10 ⁵ IU/mg.
Molecular Mass	Approximately 7.4 kDa, a single non-glycosylated polypeptide chain containing 67 amino acids.
AA Sequence	TLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEM YCAPLKPAKSA
Endotoxin	Less than 50 EU/mg of rHuDES1-3 IGF-1 as determined by LAL method.
Purity	>97% by SDS-PAGE and HPLC analysis.
Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. 12 months from date of receipt, -20 to -70 centigrade as supplied. 1 month, 2 to 8 centigrade under sterile conditions after reconstitution. 3 months, -20 to -70 centigrade under sterile conditions after reconstitution.
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 centigrade. Further dilutions should be made in appropriate buffered solutions.

GENE INFORMATION

Gene Name	IGF1
Official Symbol	IGF1
Synonyms	IGF1; insulin-like growth factor 1 (somatomedin C); insulin-like growth factor 1; IGF1A; MGF; IGF-IA; IGF-IB; somatomedin-C; mechano growth factor; insulin-like

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growth factor I; insulin-like growth factor IA; insulin-like growth factor IB; IGF1; IGF-I;

Gene ID 3479

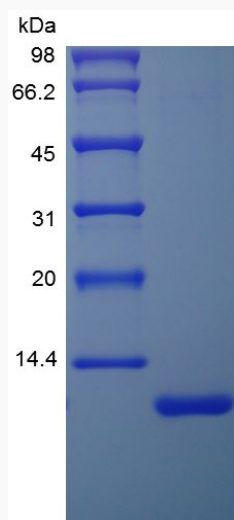
mRNA Refseq NM_000618

Protein Refseq NP_000609

MIM 147440

UniProt ID P05019

SDS-PAGE of IGF1-524H



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