
Product Data Sheet

Product Name: IGF1 Human Des1-3
 Cat. No.: GP20415
 Batch No.: 1

Product Data

Purity	>98%	Source	Escherichia Coli.
Physical Appearance	solid	Shipping Condition	Shipped at Room temp.
Synonyms	Somatomedin C; IGF-I; IGFI; IGF1; IGF-IA; Mechano growth factor; MGF; Des(1-3); Des1-3; Des 1-3; Des (1-3); IGF-1 (4-70).		
Amino Acid Sequence	TLCGAELVDA LQFVCGDRGF YFNKPTGYGS SSRRAPQTGI VDECCFRSCD LRRLEMYCAP LKPAKSA.		
Solubility	It is recommended to reconstitute the IGF-I des(1-3) in sterile 18M-cm H ₂ O not less than 100µg/ml, which can then be further diluted to other aqueous solutions.		
Formulation	The protein (1mg/ml) was lyophilized was lyophilized from a 0.2µm filtered concentrated solution in 20mM PBS, pH 7.0.		

Introduction

The somatomedins, or insulin-like growth factors (IGFs), comprise a family of peptides that play important roles in mammalian growth and development. IGF1 mediates many of the growth-promoting effects of growth hormone (GH; MIM 139250). Early studies showed that growth hormone did not directly stimulate the incorporation of sulfate into cartilage, but rather acted through a serum factor, termed 'sulfation factor,' which later became known as 'somatomedin' (Daughaday et al., 1972). Three main somatomedins have been characterized: somatomedin C (IGF1), somatomedin A (IGF2; MIM 147470), and somatomedin B (MIM 193190) (Rotwein, 1986; Rosenfeld, 2003).

Biological Activity

The ED₅₀ as determined by a cell proliferation assay using FDC-P1 cells is less than 2.0 ng/ml, corresponding to a specific activity of > 56^L10⁵ units/mg.

Stability

Caution: Product has not been fully validated for medical applications. For research use only.

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Lyophilized IGF-I des(1-3) although stable at room temperature for 3 weeks, should be stored desiccated below -18°C . Upon reconstitution IGF1 des-1-3 should be stored at 4°C between 2-7 days and for future use below -18°C . For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

Background

IGF-I Des(1-3) Human Recombinant produced in E.Coli is a single, non-glycosylated, polypeptide chain containing 67 amino acids (aa 4-70) and having a molecular mass of 7368.5 Dalton. IGF-1 Des1-3 is purified by proprietary chromatographic techniques.

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