
Product Data Sheet

Product Name: IGF1 Mouse

Cat. No.: GP20422

Batch No.: 1

Product Data

Purity	Greater than 98.0% as determined by(a) Analysis by RP-HPLC.(b) Analysis by SDS-PAGE.	Source	Escherichia Coli.
Physical Appearance	Sterile Filtered White lyophilized (freeze-dried) powder.	Shipping Condition	Shipped at Room temp.
Synonyms	Somatomedin C; IGF-I; IGFIA; IGF1.		
Amino Acid Sequence	The sequence of the first five N-terminal amino acids was determined and was found to be Gly-Pro-Glu-Thr-Leu.		
Solubility	It is recommended to reconstitute the lyophilized IGF1 in sterile 18MΩ-cm H ₂ O not less than 100μg/ml, which can then be further diluted to other aqueous solutions.		
Formulation	The protein was lyophilized with no additives.		

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, calculated by the dose-dependant proliferation of murine BALB/C 3T3 cells (measured by 3H-thymidine uptake) is < 1.0 ng/ml, corresponding to a specific activity

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

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of 1MU/mg.

Stability

Lyophilized IGFI although stable at room temperature for 3 weeks, should be stored desiccated below -18°C . Upon reconstitution IGF-1 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

Insulin-Like Growth Factor I mouse Recombinant produced in E.Coli is a single, non-glycosylated, polypeptide chain containing 70 amino acids and having a molecular mass of 7600 Dalton. IGF-I is purified by proprietary chromatographic techniques.

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