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## Product Data Sheet

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Product Name: IGF1 Rabbit  
 Cat. No.: GP20425  
 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.		
Amino Acid Sequence	MTAGPETLCG AELVDALQFV CGDRGFYFNK PTGYGSSSRR APQTGIVDEC CFRSCDLRRL EMYCAPLKP		
Solubility	It is recommended to reconstitute the lyophilized rbIGF-I in sterile 0.4% NaHCO <sub>3</sub> adjusted to pH 8-9, not less than 100µg/ml, which can then be further diluted to other aqueous solutions.		
Formulation	The protein was lyophilized from a concentrated (0.5mg/ml) solution with 0.02% NaHCO <sub>3</sub> .		

### Introduction

The 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. 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'. Three main somatomedins have been characterized: somatomedin C (IGF1), somatomedin A, and somatomedin B. IGF-1 is a small protein secreted mostly but not exclusively by the liver and circulating in blood mostly as a complex with several IGF binding proteins. It has growth-regulating, insulin-like, and mitogenic functions and it is secreted in response to growth hormone stimulation.

### Biological Activity

IGF-I is biologically active when compared to human IGF-1. The ED<sub>50</sub>, calculated by the dose -dependent proliferation of human MCF/7 cells is 5 to 25ng/ml in the cell culture mixture dependent on culture conditions. Its activity consists of 30-40 % compared to

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

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human IGF-1.

### Stability

Lyophilized Insulin-Like Growth Factor-1 although stable at room temperature for 3 weeks, should be stored desiccated below  $-18^{\circ}\text{C}$ . Upon reconstitution IGF1 should be stored at  $4^{\circ}\text{C}$  between 2-7 days and for future use below  $-18^{\circ}\text{C}$ .

### Background

Insulin-Like Growth Factor-I Rabbit Recombinant produced in E.Coli is a single, non-glycosylated, polypeptide chain containing 71 amino acids and having a molecular mass of 7639 Dalton.

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