

## 32-1345: bIGF1 Recombinant Protein

**Alternative Name :** Somatomedin C,IGF-I,IGFI,IGF1,IGF-IA,Mechano growth factor,MGF.

### Description

Source : Escherichia Coli. 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. 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.

### Product Info

<b>Amount :</b>	50 µg
<b>Purification :</b>	Greater than 98.0% as determined by:(a) Gel-filtration chromatography under non denaturing conditions.(b) Analysis by SDS-PAGE.
<b>Content :</b>	The protein was lyophilized from a concentrated (0.5 mg/ml) solution with 0.02% NaHCO <sub>3</sub> .
<b>Storage condition :</b>	Lyophilized Insulin-Like Growth Factor-1 although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution IGF1 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.
<b>Amino Acid :</b>	MTAGPETLCG AELVDALQFV CGDRGFYFNK PTGYGSSRR APQTGIVDEC CFRSCDLRRL EMYCAPLKP

### Application Note

It is recommended to reconstitute the lyophilized rbIGF-I in sterile 0.4% NaHCO<sub>3</sub> adjusted, not less than 100 µg/ml, which can then be further diluted to other aqueous solutions. 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 human IGF-1.

