GroPep® Bioreagents

Human IGF-I (Receptor Grade)

Description

Human insulin-like growth factor-I (IGF-I) is a single chain 70 amino acid polypeptide that shares structural homology with insulin and human IGF-II. IGF-I plays a critical role in growth, differentiation and development via autocrine, paracrine and endocrine mechanisms. It is a mitogen and also has effects on cell migration and differentiation. IGF-I binds to the type I IGF receptor and most of its actions are probably mediated through inducing signal transduction via this receptor. IGF-I also binds to each of the six IGF binding proteins (IGFBPs). This binding also regulates the biological function of IGF-I. IGF-I is highly conserved across species which suggests an important role for the peptide. Human IGF-I is present in high concentrations in normal adult human serum in a complex with IGFBP-3 and the acid-labile subunit (ALS) and mediates many of the actions of Growth Hormone. IGF-I is a regulator of metabolism and is also implicated in the pathophysiology of cancer, diabetes and obesity.

References

Humbel RE (1990) European Journal of Biochemistry **190**, 445-462
Stewart CEH and Rotwein P (1996) Physiological Reviews **76**, 1005-1026
Butler AA and Le Roith D (2001) Annual Review of Physiology **63**, 141-164

Source: Produced in *E.coli.*

Molecular Weight: 7649 ± 2 Daltons

Purity: ≥ 95 % (by HPLC analysis)

N-terminal sequence: Analysis of 5 residues

Biological Activity: Proliferation of Chinese hamster ovary (CHO) cells (EC_{50} ≤ 30 ng/ml)

Endotoxin: ≤ 0.1 EU/µg

Appearance: White powder freeze-dried from 0.1M acetic acid and stored under nitrogen at a slight vacuum.

Storage/Stability: At least 2 years at 2-8°C (as a freeze dried product).

Reconstitution: *Handling of GroPep IGF-I, IGF-II and IGF analogues*

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Product Codes

Human IGF-I (RG)	**20 µg**	**CU020**
	100 µg	**CU100**
	1 mg	**CM001**
	5 mg	**CM005**

Related Products:

Biotinyl human IGF-I
Human IGF-I (Media Grade)
Human IGF-I antiserum (Rabbit)
Human IGF-I monoclonal antibody
Human IGF-II (Receptor Grade)

****NOT FOR USE IN HUMANS****

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