EAGLE BIOSCIENCES

GroPep Bioreagents

GroPep

Human LR³ IGF-I (Media Grade)

Description

Human LR³ insulin-like Growth Factor-I (LR³IGF-I) is an 83 amino acid analogue of IGF-I comprising the complete human IGF-I sequence with the substitution of an Arginine for the Glutamine at position 3, plus a 13 amino acid extension peptide at the N-terminus.
Human LR³IGF-I is more potent than IGF-I *in vitro* and *in vivo*. This increased potency is due to reduced binding of LR³IGF-I to most of the IGF binding proteins which modify the biological actions of IGF-I. Human LR³IGF-I binds to the type 1 IGF receptor with similar affinity to wild type IGF-I.

LR³IGF-I was developed by GroPep specifically for supplementation of mammalian cell culture to support the survival and proliferation of cells. It is engineered to have a higher biological potency than native IGF-I or IGF-II and has several advantages over recombinant insulin. Supplementation of cell cultures with LR³IGF-I at a much lower concentration results in equivalent or better productivity than supplementation with standard concentrations of insulin. LR³IGF-I is better able to stimulate the type I IGF receptor and thus induce a higher level of activation of intracellular signalling molecules which are responsible for promoting cell survival by inhibition of apoptosis.

Media grade LR³IGF-I is a high quality product for use in commercial cell culture.
It can also be used as a research reagent at an economical cost to enable studies where higher quantities of peptide are required.

References	Francis GL *et al* (1992) Journal of Molecular Endocrinology **8**, 213-223 Yandell C *et al* (2004) Bioprocess International **2**, 56-64
Source:	Produced in *E.coli.*
Molecular Weight:	9110.6 ± 2 Daltons
Purity:	≥ 95 % (by SDS gel electrophoresis)
HPLC analysis:	Three peaks with main peak being > 50% of total area (Other species are micro heterogeneous forms which have biological activity)
N-terminal sequence:	Analysis of 18 residues
Biological Activity:	Proliferation of Chinese Hamster Ovary (CHO) cells (EC_{50} ≤ 10 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 LR^{3}IGF-I (MG)	**1 mg**	**AM001**
	10 mg	**AM010**

Related Products:

Human LR^{3}IGF-I (Receptor grade)
Human [Arg^3] IGF-I (Media Grade)
Human LR^{3}IGF-I ELISA
Human IGF-I (Media Grade)

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

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