

GroPep Bioreagents

Human LR³IGF-I (Receptor 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.

Receptor grade LR³IGF-I is a high quality research reagent for use in studies on cell growth, IGF receptors and IGF binding proteins.

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 %
N-terminal sequence: Analysis of 18 residues

Biological Activity: Stimulation of protein synthesis in L6 myoblasts
(ED₅₀ ≤ 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*

GroPep Bioreagents Pty Ltd
51 West Thebarton Road
Thebarton SA 5031
Australia

ABN 93 147 032 166

Telephone: +61 8 7222 1051

Postal Address:
PO Box 10065
Adelaide Business Centre
SA 5000
Australia

Email:
info@gropep.com

Internet:
www.gropep.com



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Product Codes and Pricing

Human LR ³ IGF-I	20 µg	BU020
	100 µg	BU100

Related Products:

Human LR³IGF-I (Media grade)
Human [Arg3] IGF-I (Receptor Grade)
Human LR³IGF-I ELISA
Human Des [1-3] IGF-I (Receptor Grade)

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

GroPep Bioreagents Pty Ltd
51 West Thebarton Road
Thebarton SA 5031
Australia

ABN 93 147 032 166

Telephone: +61 8 7222 1051

Postal Address:
PO Box 10065
Adelaide Business Centre
SA 5000
Australia

Email:
info@gropep.com

Internet:
www.gropep.com

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