



GroPep® Bioreagents

Human [Ala³¹] IGF-I

Description

Human [Ala³¹]insulin-like Growth Factor-I ([Ala³¹]IGF-I) is an analogue of human IGF-I which has an Alanine substitution in place of Tyrosine at position 31 of the human IGF-I sequence. [Ala³¹]IGF-I has normal binding to acid-stripped human serum binding proteins but has reduced binding to the type 1 IGF receptor and to the insulin receptor compared to IGF-I. It has a slightly higher affinity for the type 1 IGF receptor than [Leu²⁴]IGF-I and [Leu⁶⁰]IGF-I and is able to elicit a weak biological response through this receptor. It is a useful analogue for studying the balance of effects of IGF-I through the type 1 receptor and IGF binding proteins.

References

Bayne ML *et al* (1990) Journal of Biological Chemistry **265**, 15648-15652
Forbes BE *et al* (2002) European Journal of Biochemistry **269**, 961-968

Source:

Produced in *E.coli*.

Molecular Weight:

7557 daltons

Purity:

>95 % (by HPLC analysis)

N-terminal sequence:

Analysis of 5 residues

Biological Activity:

Stimulation of protein synthesis in rat L6 myoblasts
(ED₅₀ < 50 ng/ml)
IGF type 1 receptor binding assay (ED₅₀ > 10 ng/ml)
IGF binding protein assay: 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 2-4°C (as a freeze dried product).

Reconstitution:

Handling of GroPep IGF-I, IGF-II and IGF analogues

Product Codes:

Human [Ala³¹] IGF-I

100 μg

AIU100

Related Products:

Human [Leu²⁴]IGF-I
Human [Leu⁶⁰]IGF-I
Human [Ala³¹][Leu⁶⁰]IGF-I
Human [Leu²⁴] [Ala³¹]IGF-I

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

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