

GroPep Bioreagents



Human IGF-II (Media Grade)

Description

Human insulin-like growth factor-II (IGF-II) is a single chain 67 amino acid polypeptide that shares structural homology with insulin and human IGF-I. IGF-II plays a critical role in embryonic and foetal development via autocrine, paracrine and endocrine mechanisms. It is a mitogen and also has effects on cell migration and differentiation. IGF-II binds to the type I IGF receptor and the IGF-II/cation-independent mannose-6-phosphate receptor. Its actions are probably mediated through inducing signal transduction via one or both of these receptors. IGF-II also binds to each of the six IGF binding proteins (IGFBPs). This binding also regulates the biological function of IGF-II. IGF-II is highly conserved across species which suggests an important role for the peptide. Human IGF-II is present in high concentrations in normal adult human serum, although the function of this is unknown. IGF-II is also implicated in the pathophysiology of cancer, diabetes and obesity.

Media grade human IGF-II is a high quality reagent at an economical cost to enable studies where higher quantities of peptide are required.

References Humbel RE (1990) European Journal of Biochemistry **190**, 445-462;

Stewart CEH & Rotwein P (1996) Physiological Reviews 76, 1005-1026

Source: Produced in *E.coli*.

Molecular Weight: 7469 ± 2 Daltons

Purity: ≥ 85 % (by HPLC analysis)

(Other species are micro heterogeneous forms which have biological activity)

N-terminal sequence: Analysis of 5 residues

Biological Activity: Proliferation of Chinese hamster ovary (CHO) cells

 $(EC_{50} \le 150 \text{ ng/ml})$

Endotoxin: $\leq 0.1 \text{ EU/µg}$

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-II (MG) 100 μg OU100 1 mg OM001

Related Products: Mono-biotinyl human IGF-II (Receptor Grade)

Di-biotinyl human IGF-II (Receptor Grade)

Human IGF-II (Receptor Grade) Human IGF-II antiserum (Rabbit)

[Leu²⁷] IGF-II

Human pro-IGF-II (aa 1-156) Human pro-IGF-II (aa 1-104)

NOT FOR USE IN HUMANS

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