

GroPep Bioreagents

Human IGFBP-1

Description

Human Insulin-like growth factor binding protein-1 (IGFBP-1) is a 234 amino acid protein which is a member of a family of six circulating proteins that bind IGF-I and IGF-II with high affinity and modulate their metabolic and mitogenic effects. The liver, ovarian granulosa cells, decidualized endometrium and a number of other cell types produce native human IGFBP-1. IGFBP-1 binds both IGF-I and IGF-II. Serum IGFBP-1 levels are regulated by insulin-induced inhibition of IGFBP-1 production. IGFBP-1 appears to inhibit smooth muscle migration in response to IGF-I or IGF-II and to stimulate wound healing in response to IGF-II. Native IGFBP-1 is predominantly a lower molecular weight species of 218 amino acids and 3-4 phosphorylated forms.

References

Liu L *et al* (1991) Biochemical Biophysical Research Communications **174**, 673-679
Schuller AG *et al* (1993) Growth Regulation **3**, 32-34

Source:

Purified from human amniotic fluid of individuals that have been shown by certified tests to be negative for hepatitis.

Molecular Weight:

25,300 daltons

Purity:

>90 % (by HPLC)

Biological Activity:

Inhibition of IGF-I stimulated proliferation of NUC-1 cells: IC₅₀ ~100 ng/ml
Inhibition of serum-induced stimulation of DNA synthesis in chick embryo fibroblast primary cultures: IC₅₀ ~300 ng/ml

Appearance:

White powder freeze-dried from 10 mM HCl and stored under nitrogen under a slight vacuum.

Storage/Stability:

At least 2 years at 2-4°C (as a freeze dried product).

Reconstitution:

Handling of GroPep IGF binding proteins 1-6

Detection:

Procedure for Western Ligand blotting using iodinated IGF-I or IGF-II
Procedure for Western Ligand blotting using biotinylated IGF-I or IGF-II

Product Codes and Pricing

Human IGFBP-1

20 µg

BP1BU020

Related Products:

Human IGFBP-2
Human IGFBP-3
Human IGFBP-4
Human IGFBP-5
Human IGFBP-6

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

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