

# RayBiotech, Inc.

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# Certificate of Analysis and Data Sheet

# Recombinant Human Insulin-like Growth Factor Binding Protein-5 (IGFBP-5)

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Catalog No.	% Source	
\$ 228-10839	🎖 Escherichia Coli.	
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## Synonyms

IGFBP-5, IBP-5, IGF-binding protein 5.

#### Introduction

IGFBP5 is a member of the insulin-like growth factor binding protein (IGFBP) family and encodes a protein with an IGFBP domain and a thyroglobulin type-I domain. The protein forms a ternary complex with insulin-like growth factor acid-labile subunit (IGFALS) and either insulin-like growth factor (IGF) I or II. In this form, it circulates in the plasma, prolonging the half-life of IGFs and altering their interaction with cell surface receptors. Alternate transcriptional splice variants, encoding different isoforms, have been characterized.

## Description

IGFBP5 Human Recombinant produced in E.Coli is a single, non-glycosylated, polypeptide chain containing 253 amino acids and having a molecular mass of 28613 Dalton. IGFBP5 is purified by proprietary chromatographic techniques.

# Physical Appearance

Sterile Filtered White lyophilized (freeze-dried) powder.

#### **Formulation**

IBP-5 was lyophilized from a concentrated (1mg/ml) solution containing 10mM sodium Citrate PH 3.0.

## Solubility

It is recommended to reconstitute the lyophilized Insulin-Like Growth Factor Binding Protein-5 in sterile  $18M\Omega$ -cm  $H_2O$  not less than  $100\mu$ g/ml, which can then be further diluted to other aqueous solutions.



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### **Stability**

Lyophilized IBP5 although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution IGFBP 5 should be stored at 4°C between 2-7 days and for future use below -18°C.

For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

## Purity

Greater than 98.0% as determined by:

- (a) Analysis by RP-HPLC.
- (b) Analysis by SDS-PAGE.

## Amino acid sequence

The sequence of the first five N-terminal amino acids was determined and was found to be Met-Leu-Gly-Ser-Phe.

## Biological Activity

The ED50, calculated by its ability to inhibit IGF-II induced proliferation of MCF-7 is  $< 0.3 \mu g/ml$  in the presence of 15ng/ml of Human IGF-II corresponding to a Specific Activity of 66,667IU/mg.