



## RayBiotech, Inc.

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# Certificate of Analysis and Data Sheet Recombinant Human Placental Lactogen

**Catalog No.**  
228-11616

**Source:**  
*Escherichia Coli*

### **Synonyms**

Chorionic Somatomammotropin Hormone 1, CSH1, Choriomammotropin, Lactogen, CSH2, PL, CSA, CSMT, FLJ75407.

### **Introduction**

Placental Lactogen is a polypeptide hormone that is produced by the Syncytiotrophoblasts of the Placenta, also known as chorionic somatomammotropin. It has both Growth Hormone and Prolactin activities on growth, lactation, and luteal steroid production. In women, placental lactogen secretion begins soon after implantation and increases to 1 g or more a day in late pregnancy. Placental lactogen is also an insulin antagonist.

Placental Lactogen Bovine is also capable of activating human and other heterologous GH receptors but not ruminant GH receptors.

### **Description**

Placental Lactogen Human Recombinant, is a single polypeptide chain containing 199 amino acids and an additional Ala at the N-terminus having a molecular mass of approximately 22.4 kDa. Placental Lactogen Recombinant is purified by proprietary chromatographic techniques.

### **Physical Appearance**

Sterile Filtered White lyophilized (freeze-dried) powder.

### **Formulation**

The protein was lyophilized from a concentrated (1mg/ml) solution with 0.02-0.03% NaHCO<sub>3</sub>.

### **Solubility**

It is recommended to reconstitute the lyophilized Placental Lactogen in sterile water or 0.4% NaHCO<sub>3</sub> adjusted to pH 8-9, not less than 100µg/ml, which can then be further diluted to other aqueous solutions, preferably in presence of carrier protein.

### **Stability**

Lyophilized Placental Lactogen Human Recombinant although stable at room temperature for 3 weeks, should be stored desiccated below

-18°C. Upon reconstitution Placental Lactogen 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.**

**The products are furnished for LABORATORY RESEARCH USE ONLY.  
Not for diagnostic or therapeutic use.**



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### ***Purity***

Greater than 99.0% as determined by

(a) Analysis by Gel Filtration.

(b) Analysis by SDS-PAGE.

### ***Amino acid sequence***

The sequence of the first six N-terminal amino acids was determined and was found to be Ala-Val-Gln-Thr-Val-Pro.

### ***Biological Activity***

Placental Lactogen Human is biologically active as evidenced by inducing proliferation of Nb2 cells.

### ***Protein content***

UV spectroscopy at 280 nm using the absorbency value of 0.73 as the extinction coefficient for a 0.1% (1mg/ml) solution. This value is calculated by the PC GENE computer analysis program of protein sequences (IntelliGenetics).

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