



## Placental Lactogen, bovine recombinant (rbPL)

**Catalog No:** 95043  
**Lot No:** XXXXX  
**Source:** *E. coli*  
**Synonyms:** Chorionic Somatomammotropin Hormone 1, CSH1, CSB, CS-1, hCS-B, BPL, BPLP-I

### Background

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 bovine recombinant produced in *E. coli* is a single polypeptide chain containing 199 amino acids and an additional Ala at the N-terminus having a molecular mass of 23 kDa. Placental Lactogen is purified by proprietary chromatographic techniques.

### Physical Appearance

Sterile filtered white lyophilized (freeze-dried) powder.

### Formulation

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

### Solubility

It is recommended to reconstitute the lyophilized Placental Lactogen in sterile 18 MΩ-cm H<sub>2</sub>O not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

### Stability

Lyophilized Placental Lactogen, 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.

### Purity

Greater than 98.0% as determined by (a) Analysis by SEC-HPLC, (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-Glu-Asp-Tyr-Ala-Pro.

### Activity

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

### Usage

**This product is offered by Biomol for research purposes only. Not for diagnostic purposes or human use. It may not be resold or used to manufacture commercial products without written approval of Biomol GmbH.**

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