



RayBiotech, Inc.

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Certificate of Analysis and Data Sheet Recombinant Ovine Prolactin

Catalog No.
228-11313

Source
Escherichia Coli.

Synonyms

Mamotropin, Luteotropic hormone, Luteotropin, PRL.

Introduction

Prolactin is a neuroendocrine hormone synthesized primarily by the pituitary gland but also a variety of other cell types including the placenta, brain and uterus. Its primary function is to promote and maintain lactation but has also been shown to have a role in breast cancer development, regulation of reproductive function and immunoregulation.

Description

Prolactin Ovine Recombinant produced in E.Coli is a single, non-glycosylated polypeptide chain containing 199 amino acids and having a molecular mass of 23 kDa. The Prolactin 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 0.0045mM NaHCO₃.

Solubility

It is recommended to reconstitute the lyophilized Prolactin in sterile 18MΩ-cm H₂O not less than 100μg/ml, which can then be further diluted to other aqueous solutions.

Stability

Lyophilized Prolactin although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution IP-01-240P 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 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 Ala-Thr-Pro-Val-Cys-Pro

Biological Activity

Is fully biologically active as evidenced by inducing proliferation of Nb2 cells.

Protein content

Protein quantitation was carried out by two independent methods:

1. UV spectroscopy at 280 nm using the absorbency value of 0.85 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).
2. Analysis by RP-HPLC, using a calibrated solution of Prolactin as a Reference Standard.

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