

Prolactin, human recombinant (rHuPrl)

Catalog No: 94903 Lot No: XXXXX Source: *E. coli*

Synonyms: Mammotropin, Luteotropic hormone, Luteotropin, PRL

Background

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 human recombinant produced in *E. coli* is a single, non-glycosylated polypeptide chain containing 200 amino acids and having a molecular mass of 23007 Dalton. Prolactin 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 10 mM sodium phosphate buffer pH 8 and 50 mM NaCl.

Solubility

It is recommended to reconstitute the lyophilized Prolactin in sterile 18 M Ω -cm H $_2$ O not less than 100 μ g/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 Prolactin 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 95.0% as determined by (a) Analysis by SEC-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-Pro-lle-Cys.

Activity

The ED50 as determined by the dose-dependant stimulation of the proliferation of rat lymphoma, Nb2-11 was found to be <0.065 ng/ml corresponding to a specific activity of 15,385,000 IU/mg.

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.