

Prolactin, rat recombinant (rrPrl)

Catalog No: 94940 Lot No: XXXXX Source: *E. coli*

Synonyms: Mammotropin, Luterotropic hormone, Lutetropin, 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 rat recombinant produced in *E. coli* is a single, non-glycosylated polypeptide chain containing 198 amino acids and having a molecular mass of 22.6 kDa. 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-Val-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 15.4 MU/mg.

Usage

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