

Recombinant Rat Prolactin

Catalog # FL009

Product Specifications

Appearance	Sterile filtered White lyophilized (freeze-dried) powder.
Purity	> 98% by SDS-PAGE or HPLC.
Endotoxin	< 0.01 EU/ μ g of rRtProlactin protein as determined by LAL method.
Expression System	Expressed in E. coli.
Species	Rat
Tag	Tag free.
Activity	Fully biologically active when compared to standard. Determined by its ability to induce the proliferation of rat Nb2-11 cells in the concentration range of 0.1-1.0 ng/ml.
Formulation	Lyophilized from a 0.2 μ m filtered concentrated solution in PBS.
Reconstitution	Before use this product, please read the direction below carefully. This vial must be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in a sterile distilled water or aqueous buffer containing 0.1% BSA to a concentration of 0.1-1.0 mg/ml. Stock solutions should be apportioned into working aliquots and stored at $\leq -20^{\circ}\text{C}$. Further dilutions should be made in appropriate buffered solutions.
Accession #	P01237 Leu30-Cys226
Amino acid sequence	LPVCSGGDCQTPLELFDREVMLSHYIHTLYTDMFIEFDKQYVQDREFIAKAINDCPTSSLATPEDKEQAQKVPPEVLLNLILSLVHSWNDPLFLQITGLGGIHEAPDAIISRAKEIEEQNKRLLEGIEKIIISQAYPEAKGNEIYLVVWSQLPSLQGVDEESKDIAFYNNIRCLRRDSHKVDNYLKFRLRCQIVHKNNC
Molecular weight	Approximately 22.6 kDa, a single non-glycosylated polypeptide chain containing 197 amino acids.
Synonyms	Mamotropin, Luteotropic hormone, Luteotropin
Stability & Storage	Shipped on wet ice. For long term storage, the product should be stored $\leq -20^{\circ}\text{C}$. Please avoid repeated freeze-thaw cycles after reconstitution. 36 months from date of receipt, -20 to -70°C as supplied. 1 month, 2 to 8°C under sterile conditions after reconstitution. 3 months, -20 to -70°C under sterile conditions after reconstitution.
Precautions	Recombinant Rat Prolactin is for research use only and not for use in diagnostic or therapeutic procedures.

Background

Prolactin (gene name PRL) is a secreted neuroendocrine pituitary hormone that acts primarily on the mammary gland to promote lactation, but has pleiotropic effects in both males and females. Its primary function is to promote and maintain lactation during pregnancy and suckling. In addition, prolactin plays an immunoregulatory role by stimulating the activities of ornithine decarboxylase and protein kinase C, which are important for the proliferation, differentiation, and function of lymphocytes. Rat prolactin shares 77% ~ 90% a.a. sequence identity with human and murine prolactin. Recombinant rat prolactin is a 22.6kDa globular protein containing 197 amino acid residues.

