

## 32-6529: Prolactin Human, PEG

**Application :** Functional Assay

**Alternative Name :** Mamotropin, Luteotropic hormone, Luteotropin, PRL.

### Description

Source: Escherichia Coli.

Sterile Filtered White lyophilized (freeze-dried) powder.

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. Prolactin is secreted when eating, nursing, mating, estrogen treatment and during ovulation. Prolactin's primary role is to promote and maintain lactation but also plays a role in breast cancer development, regulation of reproductive function and immunoregulation.

Prolactin Human Recombinant Pegylated produced in E.Coli is a single, non-glycosylated polypeptide chain containing 199 amino acids + an additional Ala at n-terminal. Pegylated Prolactin is mono-pegylated having a molecular mass of ~ 39 kDa, however under non-denaturing conditions it behaves as 220 kDa protein due to its increased hydrodynamic volume. The Pegylated Prolactin protein is purified by proprietary chromatographic techniques.

### Product Info

**Amount :** 20 µg / 100 µg

**Purification :** Greater than 95.0% as determined by gel filtration analysis.

**Content :** The protein was lyophilized from a concentrated (1mg/ml) solution with 0.02% NaHCO<sub>3</sub>. It is recommended to reconstitute the lyophilized Prolactin in sterile 0.4% NaHCO<sub>3</sub> pH-8.5, not less than 100µg/ml, which can then be further diluted to other aqueous solutions.

**Storage condition :** 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.

### Application Note

Pegylated Human Prolactin was tested for its biological functionality in-vitro by inducing proliferation of Nb2 cells or Baf/3 cells that were stably transfected with Human Prolactin receptors, though its activity is lower than human Prolactin. However, it is anticipated that its biological activity in vivo will be higher than human Prolactin due to prolonged persistence in circulation.