



Prolactin Antagonist (Mutant), ovine recombinant (roPrl-A)

Catalog No: 97321
Lot No: XXXXX
Source: *E. coli*
Synonyms: Mamotropin, Luteotropic hormone, Luteotropin, PRL, Prolactin

Background

Prolactin is a lactogenic hormone secreted by the adenohypophysis. Besides its major action on lactation, in some species prolactin exerts effects on reproduction, maternal behavior, fat metabolism, immunomodulation and osmoregulation. Prolactin has been shown also to have cytokine-like activities and to have important immunoregulatory activities. It contributes to the development of lymphoid tissues and the maintenance of physiological immune function and also modulates a variety of T-cell immune responses. Prolactin has been reported to activate cellular proliferation in nonreproductive tissue, such as liver, spleen, and thymus. It induces significant proliferation in aortic smooth muscle cells and also enhances proliferation of these cells induced by PDGF. Prolactin also appears to be directly mitogenic for pancreatic beta cells. Prolactin is also mitogenic for cultured astrocytes.

Description

Prolactin Antagonist ovine recombinant produced in *E. coli* is a single, non-glycosylated polypeptide chain containing 199 amino acids and an additional Ala at N-terminus and having a molecular mass of 23 kDa. The mutant R129G is DES 9 amino acids truncated form from its N-terminus which has higher inhibitory activity. Ovine Prolactin Antagonist is purified by proprietary chromatographic techniques.

Physical Appearance

Sterile filtered white lyophilized (freeze-dried) powder.

Formulation

Ovine Prolactin was lyophilized from a concentrated (1 mg/ml) solution with 0.02%-0.03% NaHCO₃.

Solubility

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

Stability

Lyophilized Prolactin Antagonist, although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution Ovine Prolactin Antagonist 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 99.0% as determined by Gel Filtration & 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.

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Activity

Ovine Prolactin Antagonist mutant form is devoid of agonistic activity and capable of inhibiting biological activity of oPRL or other lactogenic hormones as evidenced by proliferation assay of Nb2 or other cells. The truncated form is more potent inhibitor.

Usage

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