

牛泌乳素mRNA的分离及鉴定*

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摘要 本文报道了从牛脑垂体提取总RNA, 经寡聚脱氧胸苷纤维素亲和层析分离获得牛脑垂体Poly(A)+RNA。牛泌乳素mRNA经含羟甲基汞琼脂糖凝胶电泳分析, 估计其长度约为1200个核苷酸。根据牛泌乳素的部分氨基酸序列推断并合成寡聚核苷酸探针, 经Northern印迹杂交及放射自显影分析, 证实了该mRNA中含有牛泌乳素mRNA的序列。在兔网织红细胞体外翻译体系中, 牛泌乳素mRNA促进了35S-甲硫氨酸掺入, 翻译合成的初级翻译产物能与兔抗羊PRL抗血清发生特异性免疫沉淀反应, SDS聚丙烯酰胺凝胶电泳及放射自显影分析结果表明, 牛泌乳素前体的分子量约25000。

关键词 [牛泌乳素,mRNA,寡聚核苷酸探针,Northern 印迹杂交,体外翻译](#)

分类号

Isolation and Characterization of Prolactin Messenger RNA from Bovine Anterior Pituitary Glands*

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Abstract

The messenger RNA was extracted from bovine anterior pituitary glands and was purified by oligo(dT)-cellulose chromatography. The length of the mRNA was 1200 nucleotides measured by agarose gel electrophoresis containing methylmercury hydroxide. The bovine prolactin(PRL) mRNA was confirmed by Northern blot analysis of the mRNA with γ -23P labelled synthetic oligonucleotide probes based on the partial amino acid sequences of bovine PRL and could stimulate the incorporation of 35S-methionine into protein in the rabbit reticulocyte cell-free system. The translation product of bovine PRL mRNA was immunoprecipitable by rabbit anti-ovine PRL antibodies. The molecular weight of the translation product corresponding to the bovine PRL precursor was estimated to be approximately 25 000 by SDS polyacrylamide gel electrophoresis and autoradiograph.

Key words [Bovine prolactin \(PRL\)](#) [mRNA](#) [Oligonucleotide probes](#) [Northern blot](#) [Cell-free translation](#)

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