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川金丝猴垂体生长激素基因的克隆与初步分析 Cloning of Novel Pituitary Growth Hormone Gene from Rhinopithecus roxellanae

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摘要 本研究通过PCR克隆测序，初步确定了川金丝猴(Rhinopithecus roxellanae)的垂体生长激素基因的全部外显子核苷酸序列及推断出相应的氨基酸序列（包括26个氨基酸的信号肽序列以及191个氨基酸的成熟蛋白序列）。我们构建了灵长类7个物种垂体生长激素基因进化关系的基因树。垂体生长激素氨基酸序列的比较和垂体生长激素重要功能位点分析的结果显示：猴科的猕猴与疣猴科的川金丝猴垂体生长激素基因差异非常小。我们推测在猴超科动物中，垂体生长激素无明显功能上的差异。

Abstract:Putative pituitary growth hormone gene of Rhinopithecus roxellanae was cloned and sequenced.All exons sequences and deduced amino acid sequence (containing 26 residues signal peptide and 191 residues mature protein) were obtained.We constructed a phylogenetic tree,which well reflected the true evolutionary relationship of pituitary growth hormone genes from 7 primates species.From the results of amino acids sequence comparison and analysis of functionally important sites of growth hormone,pituitary growth hormone of macaque from Cercopithecidae and snub-nosed golden monkey from Colobidae show little difference.We indicated that pituitary growth hormone from Cercopithecoidea species have no apparently functional difference.

关键词 垂体生长激素基因 川金丝猴 猴超科 序列分析 Key words pituitary growth hormone gene Rhinopithecus roxellanae Cercopithecoidea sequence analysis

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