

猕猴属五个种mtDNA多态性研究¹⁾

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摘要 本文以10种限制性内切酶研究猕猴属5个种 (*Macaca mulatta*, *M. nemestrina*, *M. assamensis*, *M. thibetana*, *M. arctoides*) 线粒体DNA进化。在13个个体中, 共检出8种限制性类型。恒河猴种内存在广泛的线粒体DNA限制性片段长度多态性 (RFLP)。结合日本猴 (*M. fuscata*) 的有关资料, 构建了猕猴属6个种的分子系统树, 并给出各个种的分化时间。结果表明, 这6个可分成 4个类群, 熊猴和藏酋猴、恒河猴和日本猴之间的遗传距离较近, 可分别划为同一类群, 红面猴与其他5种猴的遗传距离最远, 在系统发生上分离最早。

关键词 [猕猴属, 线粒体DNA, 限制性内切酶图谱, 分子系统树](#)

分类号

Mitochondrial DNA Polymorphism in Five Species of the Genus *Macaca*

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Abstract

mtDNA from thirteen monkeys of five species (*Macaca mulatta*, *M. nemestrina*, *M. assamensis*, *M. thibetana*, *M. arctoides*) of the genus *Macaca* was analyzed with ten restriction enzymes, and compared with that of Japanese monkey (*Macaca fuscata*). Eight restriction types were observed among thirteen samples. There was extensive polymorphism in *M. mulatta*. The estimated number of nucleotide substitutions per site in *M. mulatta* is 0.012, and between these six species ranges from 0.016 to 0.091. Molecular phylogenetic tree of the mtDNA was constructed based on the genetic distance (P). The six species were divided into four groups: *M. nemestrina*, *M. arctoides*, *M. assamensis* and *M. thibetana*, *M. mulatta* and *M. fuscata*. Our results support Fooden's (1976) classification of the genus *Macaca* into four species groups on the basis of morphologic data. Divergence times of the six species of the genus *Macaca* were also estimated on the mean rate of sequences divergence of 0.02 per million years in mtDNA.

Key words [Macaca](#) [Mitochondrial DNA](#) [Restriction map](#) [Molecular Phylogenetic tree](#)

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