

F103

Phylogenetic relationship of Perissodactyla by ϵ -globin gene analysis

Gi OK Kim, Moon You Oh, Se Jae Kim, Seng Soo Lee ¹,
and Kyu Il Kim ¹

Department of Biology, ¹⁾ Department of Animal Science of
Cheju National University

The studies about the Perissodactyla ϵ -globin suggest that the β -globin gene locus in goat and sheep have apparently evolved among a different pathway from the mammalian counterpart. Phylogenetic relationship among Perissodactyla was examined on the basis of the comparison of partial ϵ -globin gene DNA sequence data. The tree construction were used by PAUP and Pileup program. Those results show that Rhinocerotidae and Tapiridae is one group, and Equidae clade is a sister diverged from Rhinocerotidae. In phylogenetic relationship constructed comparing our results with globin sequences reported from other mammalian species, the Perissodactyla group is sister group of Artiodactyla (goat, pig).

F104

The polymorphism of cytochrome-b gene in Cheju native horses and Mongolia horses

Gi OK Kim, Moon You Oh, Se Jae Kim, Seng Soo Lee ¹,
and Kyu Il Kim ¹

Department of Biology, ¹⁾ Department of Animal Science of
Cheju National University

The cytochrome-b gene in mitochondrial DNA were amplified using by PCR with primers, and digested with restriction enzymes as Msp I and Hae III from Cheju native horses (25 individual) and Mongolia horses (10 individual). The variant types were found when PCR product digested with Msp I enzyme, and which are designated A type(935 bp, 230, 70 bp), B type (755, 230, 180, 70bp), respectively. The phenotype frequencies in Cheju native horses, in Mongolia horses were B type(21 individual), A type (7 individual), respectively. Therefore, Cheju native horse was different inbreed horse from Mongolia horse.