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## Variation in the ovine and caprine keratin-associated protein 22-2 gene

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Wool keratin-associated proteins are a structural component of the wool fiber, which plays a role in defining the properties of the wool fiber. The keratin-associated protein family genes encode these proteins. This research is taken 150 sheep (Merino×Southdown lambs and New Zealand (NZ) Romney lambs) and 80 goats (Chaida Black goats, the Ziwuling Black goat, the Hexi Cashmere goat and the Inner Mongolia cashmere goat) as the research object, PCR-SSCP and sequencing method were used for detecting SNPs in the ovine and caprine keratin-associated proteins 22-2 gene. No mutations in ovine keratin-associated proteins 22-2 gene were detected in the Merino×Southdown-cross lambs and New Zealand Romney lambs. There were three SNPs and three alleles were detected in caprine keratin-associated proteins 22-2 gene on four goat breeds, one of SNPs was a non-synonymous mutation, which resulting in a mutation between arginine and glycine. C has a 6-bp insert, and an addition of 2 amino acids (arginine and cysteine). AA and AB are dominant genotypes. A is the dominant allele in these goat breeds. The significant difference on gene variation in keratin-associated proteins 22-2 gene may result from the different selection on the gene between the two species.

### Biography

Yuzhu Luo is Professor of Gansu Agricultural University of China. He is the Director of Gansu Key Laboratory of Herbivorous Animal Biotechnology and Assistant President of Gansu Agricultural University. His research area includes four directions which are grazing animal genomes (functional gene selection) and molecular breeding, reproduction control, traceability and quality of meat and milk products, and biological reactor. He has published more than 190 papers.

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