

Polymorphism of Candidate Genes for Meat Production in Lori Sheep

Authors : Shahram Nanekarania, Majid Goodarzia

Abstract : Calpastatin and callipyge have been known as one of the candidate genes in meat quality and quantity. Calpastatin gene has been located to chromosome 5 of sheep and callipyge gene has been localized in the telomeric region on ovine chromosome 18. The objective of this study was identification of calpastatin and callipyge genes polymorphism and analysis of genotype structure in population of Lori sheep kept in Iran. Blood samples were taken from 120 Lori sheep breed and genomic DNA was extracted by salting out method. Polymorphism was identified using the PCR-RFLP technique. The PCR products were digested with MspI and FagI restriction enzymes for calpastatin gene and callipyge gene, respectively. In this population, three patterns were observed and AA, AB, BB genotype have been identified with the 0.32, 0.63, 0.05 frequencies for calpastatin gene. The results obtained for the callipyge gene revealed that only the wild-type allele A was observed, indicating that only genotype AA was present in the population under consideration.

Keywords : polymorphism, calpastatin, callipyge, PCR-RFLP, Lori sheep

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