ABSTRACT

The myostatin gene (also known as GDF-8) regulates development of muscle and inactivation of this gene or the gene products results in extended muscular development in several mammal. An earlier report showed that some mutations that occur in the myostatin gene might influence on meat production in animals carrying different myostatin alleles. Sistani is typical humped beef cattle of Iran; therefore, identification of genetic variation of genes that influence on growth traits may increase the accuracy and efficiency of selection program. Therefore, the objective of present study was to determination of polymorphisms of MSTN gene in Sistani cattle breeds and its association with growth traits. DNA extracted from blood samples Uosing by guanidium thiocyanate - silica gel Quantity and Quality of DNA Evalvated by to Methods Electrophoresis and Spectrophotometery. Genetic polymorphism, for 32 DNA samples in the locus were determined by digestion of PCR products (274bp) with endonuclease Taq1, followed by electrophoresis in agarose gel stained with ethidium bromide. Only two AC and CC genotype observed in the 32 studied sistani cattle. The genotype frequency for AC and CC were 71.88% and 28.12%, respectively. The frequencies of allele A and C MSTN locus in the animals were 0.36 and 0.64 respectively. The genotype frequencies were not in Hardy-Weinberg equilibrium in studied population. Results from statistic analyses revealed that cattle with the AC genotype ($P < .05$).

Key Words: Sistani cattle, *MSTN, RFLP(* Taq1), Growth Traits

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