

Abstract

Imprinted genes has a role important in the growth and development of the fetus. To determine MEG9 gene polymorphism and its association with growth traits in Sistani cattle, the blood sample were randomly collected from male and female about 30 sistani cattle located in research station Zahak. The DNA extraction was performed by using phenol chloroform procedures. Polymerase chain reaction was performed for amplification of 210 bp segments using specific primers. For determining of possible mutations in target sequence the SSCP method, 8% polyacrylamide gel was used and for observation of fragments, polyacrylamide gel electrophoresis and silver staining were used. For investigating of the relationship between MEG9 gene polymorphism with growth traits and mean comparison, the least squares mean procedure (GLM) t-student test used by statistical software JMP. The results were shown that MEG9 gene has three band pattern (genotype) q1, q2 and q3, with frequencies of 0.37, 0.34 and 0.29, respectively. The genetic diversity in MEG9 gene has significant correlation with growth traits ($P < 0.05$).

Keywords: MEG9, polymorphism, PCR-SSCP, Sistani cattle



University of Zabol
Graduate School
Agriculture
Department of Animal Science

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**Exploration of MEG9 gene
polymorphism and their correlation with
growth traits in Sistani cattle**

Supervisors:
Dr. Dashab Gholamreza

Advisor:
Dr Mehdi Vafaye Valeh

By:
H. Akbari

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