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(in the Genetics and Animal Breeding)

**Study of polymorphism of TFAM gene
and its association with growth traits in
Sistani cattle**

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ABSTRACT

Sistani beef cattle breeds and genetic resources of the country in terms of production value, quantity and quality of the carcass, feed efficiency and significant capability is suitable for fattening. In order to explore the TFAM gene polymorphisms using PCR-REFLP animals were carried out in 54 randomly-selected individual cows Sistani took blood from a vein in the neck. Then cattle blood samples with salting-quality detergent extraction with 1% agarose gel electrophoresis method. The position of the TFAM promoter region amplified by PCR and PCR product length 801bp by enzyme BsuRI(HaeIII) cut. Digestion products by electrophoresis using 2% agarose gel and stained with ethidium bromide was shown making. Pattern of digestion in animals homozygous (AA) three bands with sizes of 152, 187 and 462bp observed in animals homozygous (CC) band sizes 83, 104, 152 and 462bp and ultimately in animals heterozygous (AC) in five bands sizes of 83, 104, 152, 187 and 462bp observed data were analyzed using POPGENE3.2 software population TFAM position deviation from Hardy-Weinberg equilibrium revealed ($P < 0.05$). Shannon index (I), an index final, heterozygosity and observed heterozygosity expected, respectively, 0.69, 0.49, 0.37 and 0.50 respectively. in this study no significant differences between the genotypes of cattle Sistani Chaygah TFAM gene There was growth traits, seems to require further studies of this as a marker to be effectively used in correlation studies

Key words: Sistani cattle, TFAM gene, growth traits, weight gain period