Polymorphism of Myostatin Gene (MSTN) Coding Region in Batur Sheep

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Abstract	The aim of present study was to investigate myostatin gene polymorphism and its association with weaning weight and body weight in Batur sheep, 30 heads of Batur all lambs were fed by concentrated feed. Body weight measured monthly after weaning to the six months of age. DNA Extraction used 200 ul of whole blood samples. To amplify exon 3 region of MSTN gene a specific primer designed using the Primer3 software. The 25 ÃƒÂŽÃ‚Â¼l volume contained 25 ng of genomic DNA, 12.5 ÃƒÂŽÃ‚Â¼l 2x Reaction mix of each primer. The cycling protocol was 5 minutes at 95ÃƒÂ‚Ã‚Â°C as initial denaturation, 35 cycles of denaturing at 94ÃƒÂ‚Ã‚Â°C for 45 seconds, annealing at 73.9 for 45 seconds, extending at 72ÃƒÂ‚Ã‚Â°C for 40 s, with final extension at 72ÃƒÂ‚Ã‚Â°C for 10 minutes. Eleven polymorphic sites were observed in the in 3rd exon region transversions at c.*121 G instead of A, del-T at c.*129, one individual at c.*139 and one individual at c.*158 positions however, one individual sequence disrupted reading frame in whole MSTN sequenced, also weaning weight and 6-month weight of Batur lambs were 21.13ÃƒÂ‚Ã‚Â±5.70 and 31.64ÃƒÂ‚Ã‚Â±7.06 to the homozygous whilst 19.99ÃƒÂ‚Ã‚Â±4.33 and 30.50ÃƒÂ‚Ã‚Â±5.44 for heterozygote respectively but there is no significe differences seen above all the studied parameters. Homozygous AA lambs had fairly low weaning weight and body weight compared to the heterozygous AB lambs but might have a higher carcass weight, further investigation is needed into the interaction of MSTN with other genes involved in muscle growth.
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