

Sexual dimorphism and identification of single nucleotide polymorphism of growth hormone gene in muscovy duck

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Abstract	<p>This research was aimed to investigate the different growth and to identify growth hormone gene polymorphism in Muscovy ducks. Two hundred Muscovy day-old ducks consisting of white-plumed male and female duck, black and white-plumed male and female ducks. Body weight was recorded weekly and the obtained data were subject to T test. Primer design used the Custal X Program based on a database from the GeneBank Cairina moschata GH gene, partial cds (AB158762). Primer base sequence of GH gene was forward/Sequence: 5'-CTGGGGTTGTTTAGCTTGGA-3' and reverse/Sequence: 5'-TAAACCTTCCCTGGCACAAC-3'. The DNA sequences were aligned by using the BioEdit version 7.7 for identification of the single nucleotide polymorphism. The result showed that male Muscovy duck produced higher an average body weight gain and more relative growth than those of females. The highest body weight gain was at three weeks old, and then it started to decrease at four weeks old. The sequencing PCR product obtained nucleotide polymorphism. AA genotype was observed at 136 t of black female Muscovy duck, CC in black and white male Muscovy duck, and white female Muscovy duck. Conclusively, a body weight gain of 3-week-old male Muscovy ducks was higher than that of females and GH gene polymorphism was observed in Muscovy ducks.</p>
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