

Evaluación de regiones polimórficas del gen de la miostatina en ganado Beefmaster

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SUMMARY

Here we analyze GDF8 gene regions which are potential carriers of polymorphisms using both base excision sequence scanning thymine-base (BESS-T) and a fluorescent technique based on temperatures of dissociation (Tm's) technique. The first one permitted us to detect five nucleotide changes located four in the flanking regions of introns 1 and 2 and one in exon II. All the sequence variations were grouped in 11 haplotypes, which were distributed in the population tested. In order to evaluate a highest number of animals, a Tm's technique was optimized to analyze the region harboring most of mutations previously detected with BESS-T. Validation of Tm's technique was achieved comparing both the BESS-T and Tm's technique results. We found a 93.5% of correlation between these techniques. The GDF8 gene mutations found in Beefmaster, do not suggest any effect on gene expression, however, their high frequency in the studied population makes interesting further studies focused to evaluate their association with productive traits such as weight gain or body conformation. The Tm's technique is proposed as a moderate throughput method which could be used for detection of mutated genotypes.