

THE POLYMORPHISM *RFLP / MBOI* AND *RFLP / BSA AI* AT LOCUS OF LEPTINE GENE OF MARAMURES BROWN BREED AND ROMANIAN SIEMMENTAL CATTLE

Carsai Crina Teodora, A. Vlaic, Viorica Cosier

University of Agricultural Sciences and Veterinary Medicine, Faculty of Animal Science and
Biotechnologies, 3-5 Manastur Street, 400372 Cluj-Napoca, Romania
email: crina792000@yahoo.com

Key words: leptine, PCR-RFLP, gene, cattle

SUMMARY

Leptine, the ob gene product, is a proteic hormone made up 167 amino acids. It is involved in regulation of body weight in rodents, primates and humans. The polymorphism at locus of leptine gene was studied using technique *PCR –RFLP*, using and testing 2 protocols (*Leiffers et al 2002*) and (*Lien et al 1997*) for genotyping of leptine gene at cattle. The polymorphism at locus of leptine gene was studied using *PCR-RFLP* (*Leiffers et al 2002*), amplifying a 400 pb fragment from leptine gene and the amplification products were restricted with *Sau 3A I* enzyme. The blood DNA extraction was obtain from Maramures Brown breed and Romanian Siemmental cattle. In both protocols, two PCR reaction mixes were used, one with 10 µl final volume, and other with 25µl final volume. The restriction of the 400 bp *PCR* product was performed with *Sau 3AI* restriction enzyme at 37⁰C, for 4 hours. 4% agarose gel was used for sample migration (Fig 1).

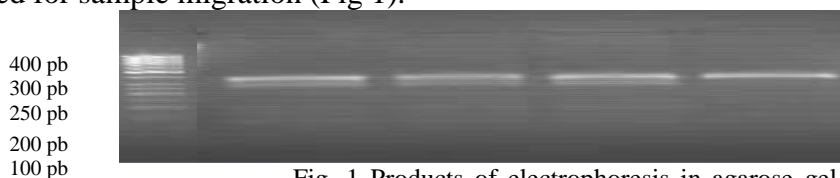


Fig. 1 Products of electrophoresis in agarose gel of bovine leptin and the homozygous AA (fragments with 400pb) and heterozygous AB (fragments with 400,300, and 100 pb)

The second polymorphism at locus of leptine gene was studied using technique *PCR –RFLP*, using and testing the protocol (*Lien et al 1997*) for genotyping of leptine gene at cattle. The polymorphism at locus of leptine gene was studied using *PCR-RFLP*, amplifying a 522 pb fragment from leptine gene and the amplification products were restricted with *BSA AI* enzyme, the alele A was nerestricted PCR reaction mixes was the same with the first protocol (*Lien et al 1997*).

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