

## INVESTIGATIONS OF FREE FROM BLAD GENE AND BLAD CARRIERS

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**Summary.** *BLAD* (Bovine Leukocyte Adhesion Deficiency) is a monogenic autosomal, recessive inherited disease of Holstein cattle. This disease is characterized by a greatly reduced level of expression of the  $\beta 2$  heterodimeric integrin. Integrins are adhesion molecules that mediate the entry and passage of neutrophils through membranes to destroy invading pathogens. Mutation was detected by polymerase chain reaction coupled with restriction fragment length polymorphism assays (PCR-RFLP). The test included 150 daughters of bulls with *BLAD* mutation. The frequency of defective alleles carriers was 27.3 % in daughters of bulls with *BLAD* mutation. *BLAD* gene doesn't have influence on morphological characteristics of blood and body weight. Immunological testing (IgG) showed increased antibody expression.

**Keywords:** cattle, *BLAD*, PCR-RFLP, mutation frequency, body weight, blood, IgG.