*УДК 636.2.033:575.113*

*DOI:****10.35330/****1991-6639-2020-4-96-26-33*

**GENETIC STRUCTURE OF HOLSTEIN BREED CATTLE**

**IN KABARDINO-BALKARIA BY PRL AND GH GENES**

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*A study of the polymorphism of the PRL and GH genes in the population of cows of the breeding herd of Holstein cattle in Kabardino-Balkaria was carried out. PCR-RFLP analysis in the studied population of cows (107 cows) made it possible to identify all possible polymorphic variants of alleles and genotypes of prolactin and somatotropin genes. The frequency of occurrence of alleles A and B of the PRL gene was: 0.855 and 0.155; alleles L and V for the GH gene - 0.738 and 0.262, respectively. The obtained research results indicate a high diversity of allele forms and genotypes for both studied genes of milk production. For the studied population of cows, the genetic equilibrium of the distribution of genotypes theoretically expected according to Hardy-Weinberg was noted. χ2 for the PRL and GH genes was 0.346 and 4.68, respectively, which is below the critical values ​​(P≤0.05).*

**Keywords:** DNA, PCR-RFLP, prolactin, growth hormone, gene, genotype, locus, marker, electrophoresis.

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