

F36 POSTER

ASSOCIATION BETWEEN A SNP OF IL2 GENE AND GASTROINTESTINAL RESISTANCE IN GOAT

BRESSANI F.A.^{1,6}, TIZIOTO P.C.², MEIRELLES S.L.³, MALAGÓ-JR W.¹, GIGLIOTI R.⁴, IBELLI A.M.G.², COUTINHO, R.⁵, CARRILHO, E.⁶, ZAROS L.G.⁵, VIEIRA, L.S.⁷, REGITANO L.C.A.¹

¹Embrapa Southeast Cattle Research Center, São Carlos, Brazil; ²UFSCar, Dept of Genetics and Evolution, São Carlos, Brazil; ³UFLA, Lavras, Brazil; ⁴UNESP, Jaboticabal, Brazil; ⁵UFRN, Natal, Brazil; ⁶University of São Paulo, São Carlos, Brazil; ⁷Embrapa Goats and Sheep, Sobral, Brazil

Interleukin-2 (IL2) is a gene belongs to a family of cytokines, which are major mediators of the immune response. So the IL2 gene is a functional candidate gene to influence the immune response in goat. This work aimed prospect SNPs in the IL2 gene and to test its associations with resistance to gastrointestinal infection in goat. A total of 229 animals that compound a population F2 offspring from a F1 intercross, which was in turn produced by crossing Saanen pure breed, considered to be susceptible to gastrointestinal endoparasites, with Anglo-Nubiana pure breed, considered to be resistant was used to obtained a sample of 44 animals extremes for resistance. These extremes animals were obtained from residues of statistical model that corrected the phenotypic data (obtained from parasitological examination of feces samples by the eggs per gram (EPG) method) to environmental variations. The genotypic data was produced by sequencing part of the IL2 gene. The sequences were further analyzed by using the Phred, Phrap, and Consed programs. A SNP (T/A) identified within the intron 1 of IL2 gene was analyzed by Fisher test and showed significant association with resistance against gastrointestinal infection by nematodes ($P = 0.0385$). This SNP can be used in marker assisted selection if this association could be validated in others populations.

Subir