GENOMIA
genetic laboratory

Result certificate #012345

Detection of ASIP (locus A) canine gene variants influencing coat color

Customer: Jan Novák, Dlouhá 1, 30000 Plzeň, Czech Republic
Sample:
Sample: 21-12345
Date received: 01.02.2021
Sample type: blood

Information provided by the customer
Name: Lassie DEMO
Breed: Plemeno
Tattoo number: 1392013
Microchip: 123 456 789 012 345
Reg. number: REGQ12345
Date of birth: 1.1.2020
Sex: female
Date of sampling: 01.02.2021
The identity of the animal has been checked.

Result: a^y/a^t

Explanation

Presence of ASIP (locus A – Agouti signal peptide) c.244G>T (p.A82S), c.248G>A (p.R83H) and c.286C>T (p.R96C) gene variants was examined. It is a set of locus A (Agouti) alleles. There have been described 4 alleles with the dominance hierarchy as follows $a^y > a^w > a^t > a$. Alleles a^y, a^w, a^t are designated jointly A-alleles (Agouti) and a-allele is called non-agouti. To distinguish a^t and a^w alleles, 231 bp SINE insertion was tested.

The wild type allele a^w causes the change from production of eumelaning to phaeomelanin in an individual hair so-called agouti colour. The allele a^y is responsible for fawn or sable colour. The a^t allele produces a black to light brown, so-called black and tan (tricolour) phenotype. The a-allele causes recessive black colour (nonagouti).

Final coat color is influenced by other loci (B, E, D, K).

Method: SOP188-MPS-canine, MPS

Date of issue: 06.02.2021
Date of testing: 01.02.2021 - 06.02.2021
Approved by: Mgr. Martina Šafrová, Laboratory Manager

verified and certified document GENOMIA genetic laboratory

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SAMPLE