GENOMIA
genetic laboratory

Result certificate #012345

Detection of TYRP1 (locus B) canine gene variants influencing coat color in Australian Shepherds

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: B/b^{s}

Explanation

Presence of TYRP1 gene (locus B) variants c.991C>T (allele bs), c.1033_1036delCCT (allele bd), c.121T>A (allele bc) and c.555T>G (alela baus) causing brown coat and nose color of Australian Shepherds was examined. It is a set of locus B (Brown) alleles. Wild type "non-brown" allele is called B.

- If the result is B/B the individual does not carry brown color.
- If the result is B/bc or B/bd, B/bs or B/baus the individual carries brown color.
- If the result is bc/bc or bd/bd or bs/bs or baus/baus the individual is brown colored.
- If the result contains two or more different b-alleles the individual could be either carrier of brown color without brown color phenotype (b-alleles are inhered from one parent only) or is brown colored (b-alleles are inhered from both parents). It is not possible to summarize locus B genotype without testing the parents.

Phenotype of b allele (brown color) is inherited as a autosomal recessive trait. This examination does not exclude existence of any unknown variant of TYRP1 gene causing brown coat and nose color. Final coat color is influenced also by other loci (A, E, D, K).

Method: SOPAgriseq_canine, ngs

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

Genomia s.r.o, Republikánská 6, 31200 Plzeň, Czech Republic
www.genomia.cz, laborator@genomia.cz, tel: +420 373 749 999