GENOMIA
genetic laboratory

Result certificate #012345

Detection of c.2420G>A variant of HPS3 gene causing cocoa coat color in French Bulldogs

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: N/cocoa

Explanation

Presence or absence of c.2420G>A variant of HPS3 gene causing cocoa coat color in French Bulldogs was tested. This gene variant is inherited independently of locus B, alleles bc, bd, bs of the TYRP1 gene. The synthesis of the black eumelanin is only partially blocked by HPS3 variant in comparison to TYRP1 variant and so the resulting colour shade is dark brown (cocoa). Puppies with HPS3 variant are born brown and become dark brown with the age. Adult dogs are slightly darker than adult dogs with TYRP1 variant, however the resulting shade is also influenced by the genetic background and it is probably not possible to reliably distinguish these coat colours without genetic testing.

Variant of the HPS3 gene is inherited autosomally recessively. The dark brown color is visible in dogs with cocoa/cocoa genotype. Dogs with N/cocoa genotype are carriers of dark brown color. Dogs with N/N genotype do not carry dark brown color.

Method: SOP188-MPS-canine, MPS, accredited method

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

SAMPLE

Genomia is accredited in compliance with ISO/IEC 17025:2018 under #1549
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Report verification code is: 12AB-CD34-GENO-MIA0-EFGH. You can verify report online at www.genomia.cz
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