

Customer: Zuzana Šimová, Zákopanka, 1137, 542 32 Úpice, Czech Republic

Sample:

Sample: 24-29606

Date received: 29.10.2024

Sample type: buccal swab

Information provided by the customer

Name: Didier Nova Moravia

Breed: Hovawart

Microchip: 203 098 100 527 347

Reg. number: CMKU/HW/10352/21

Date of birth: 28.3.2021

Sex: male

Date of sampling: 24.10.2024

The identity of the animal has been checked by MVDr. Ondřej

Vlček, KVL 6025

Result: D/D

Explanation

It has been examined the presence of gene variants c.-22G>A of MLPH-gene (melanophilin gene) causing coat colour dilution in dogs. The dilution is caused by d1-allele at D-locus (Dilution). The MLPH-gene is responsible for the density of pigment granules (eumelanine) in a hair. The presence of the gene variant c.-22A, d1-allele, causes the loss of pigment granules in a hair; the original black colour is diluted to blue and brown colour to lilac.

The phenotypic expression of d1-allele is inherited autosomal recessively. The colour dilution occurs only in d1/d1-dogs that inherit d1-allele from each of its parents. The dilution is not expressed in heterozygous dogs D/d1, however these dogs are carriers of this trait. Dogs with D/D result do not carry dilution.

There is other MLPH-gene variant c.705C (d2-allele) that is responsible for colour dilution in various dog breeds. The diluted dogs are also compound heterozygous d1/d2, where the d1-allele is inherited from one parent and d2-allele from the other parent.

There will be probably discovered other gene variants responsible for colour dilution. The final colour of a dog is affected by the presence of alleles at other loci (E, B, A, K and other).

Method: SOP175-MLPH, real-time PCR-ASA, accredited method

Date of issue: 01.11.2024

Date of testing: 29.10.2024 - 01.11.2024

Approved by: Mgr. Martina Šafrová, Laboratory Manager



Genomia is accredited in compliance with ISO/IEC 17025:2018 under #1549

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Report verification code is: CR45-621T-WTY3-24T2-KW4Y. You can verify report online at www.genomia.cz

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