



Detection of SINE insertion in MITF gene

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: S/s

Explanation

Presence or absence of SINE insertion (short interspersed nucleotide element) in canine MITF gene was tested. The SINE insertion was only found in dogs presenting the extreme white or piebald phenotypes (s/s), and was absent in Irish-spotted and solid dogs (S/S).

The s-allele causing extreme white coloring (s^w) and piebald (s^p) is inherited incompletely dominant. One copy of the s-allele results in a dog with less white markings (called the "trim" pattern). Homozygous status (s/s) causes piebald or extreme white coat color.

• S/S -> solid color

• S/s \rightarrow dog carries one SINE inserted allele (s^w or s^p) \rightarrow less white markings, the s^w and s^p alleles cannot be distinguished by this test

• s/s -> the individual is homozygous for SINE insertion -> extremely white s^w/s^w or piebald s^p/s^p coat color appears

Method: SOP176-MITF-SINE, ASA-PCR

Date of issue: 06.02.2021

Date of testing: 01.02.2021 - 06.02.2021

Approved by: Mgr. Martina Šafrová, Laboratory Manager



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