

Result certificate #012345

Detection of c.1752_1755delAACT mutation in CNGA1 gene causing PRA in Shetland Sheepdogs

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: Mutation was not detected (N/N)

Legend: N/N = wild-type genotype. N/P = carrier of the mutation. P/P = mutated genotype (individual will be most probably affected with the disease). (N = negative, P = positive)

Explanation

Presence or absence of c.1752_1755delAACT mutation in CNGA1 gene causing eprogressive retinal atrophy (CNGA1-PRA) in Shetland Sheepdogs was tested. The PRA starts by degeneration and loss of rod cells leading to so-called night blindness. It is followed by cone degeneration which is connected with visual impairment at bright light. The range of the age of the disease onset is relatively wide and in average the first signs of PRA become apparent at the age of 5 years.

Mutation that causes CNGA1-PRA in Shetland Sheepdogs is inherited autosomally recessively which means that the disease develops only in those dogs who inherit mutated allele from both parents; disease affects dogs with P/P genotype only. The dogs with N/P genotype are considered carriers of the disease (heterozygotes). In offspring of two heterozygous animals following genotype distribution can be expected: 25 % N/N, 25 % P/P and 50 % N/P.

Method: SOPAgriseq_canine, ngs, accredited method

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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