

Detection of c.4973_4974insA mutation in
MYO5A gene causing CDN
in Miniature Dachshunds

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.4973_4974insA mutation in MYO5A gene causing dilute coat color with neurological defects, Griscelli Syndrome Type I, (CDN/GST1) in Miniature Dachshund was tested. Affected puppies are unable to maintain an **upright head position** or to hold a normal prone position on their belly for an extended period. They are almost unresponsive to environmental stimuli.

Mutation that causes CDN 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: SOP188-MPS-canine, MPS

Date of issue: 06.02.2021

Date of testing: 01.02.2021 - 06.02.2021

Approved by: Mgr. Martina Šafrová, Laboratory Manager

