

Result certificate #012345

Detection of c.179G>A mutation GLB1 gene causing gangliosidosis 1 in Portuguese
Water Dogs

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.179G>A mutation GLB1 gene causing gangliosidosis 1 (GM1) in Portuguese Water Dogs was tested. The first clinical signs become apparent from 5-6 months of age. The affected dogs suffer from asymmetric growth and progressive neurological degradation caused by incorrect function of cerebellum. Subsequently, progressive loss of coordination, muscle tremors and muscle ataxia occur. The eyes of the dog can be also affected, beginning with squinting and ending by complete loss of vision. The progressive worsening of the health condition results in premature death of the dog or euthanasia.

Mutation that causes GM1 in Portuguese Water Dogs is inherited as an autosomal recessive trait. That means the 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

Date of issue: 06.02.2021

Date of testing: 01.02.2021 - 06.02.2021

Approved by: Mgr. Martina Šafrová, Laboratory Manager



Genomia s.r.o, Republikánská 6, 31200 Plzeň, Czech Republic www.genomia.cz, laborator@genomia.cz, tel: +420 373 749 999