

Result certificate #218648

Detection of c.118G>A mutation in SOD1 gene causing degenerative myelopathy in dogs

Customer: Dušan Kollárik, Belá 33, 03811 Belá-Dulice, Slovak Republic

Sample:

Sample: 23-01202 Date received: 23.01.2023 Sample type: buccal swab

Information provided by the customer Name: GIANNA Bella Aurea Breed: Golden Retriever Microchip: 941 000 023 870 583 Reg. number: SPKP 3603/21

Date of birth: 15.5.2019

Sex: female

Date of sampling: 19.01.2023

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

Blahušiaková, KVL 0814

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.118G>A mutation in SOD1 gene causing degenerative myelopathy in many canine breeds was tested. This mutation is sometimes referred to as SOD1A. Affected dogs have progressive loss of movement and gradual worsening of the condition up to complete paralysis. The age of disease onset and symptoms severity vary among the breeds.

Mutation SOD1A 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 (healthy non-carriers), 25 % P/P (affected), and 50 % N/P (healthy carriers).

The test does not exclude existence of another, nowadays unknown, mutation which can cause DM. In Bernese Mountain Dogs, there has been identified also SOD1B mutation responsible for DM - this test does not refer about SOD1B.

Analysis was performed by the partner laboratory. Genomia guarantees the quality of its partner's services.

Method: SOPAgriseg canine TD, ngs

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Approved by: Mgr. Martina Šafrová, Laboratory Manager



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