GENOMIA
genetic laboratory

Result certificate #254283

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

Customer: Lenka Orzelová, Bohumínská 437/42, 710 00 Slezská Ostrava, Czech Republic
Sample:
Sample: 24-40118
Date received: 30.01.2024
Sample type: buccal swab

Information provided by the customer
Name: Carramia Royal Glow
Breed: Poodle Standard
Microchip: 941000027192388
Reg. number: CMKU/P/23254/22
Date of birth: 17.7.2022
Sex: female
Date of sampling: 27.01.2024
The identity of the animal has been checked by Ing. Nikola Eretová, Genomia s.r.o.

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: SOP175-DM, real-time PCR-ASA

Date of issue: 12.02.2024
Date of testing: 30.01.2024 - 12.02.2024
Approved by: Mgr. Martina Šafrová, Laboratory Manager

verified and certified document
GENOMIA genetic laboratory

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