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Result certificate #012345

Diagnostic test for Copper Toxicity in Bedlington Terriers

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 39,7 kb deletion in exon 2 of canine COMMD1 gene was tested. This deletion causes copper toxicosis (CT) in Bedlington Terriers. Copper toxicosis is a metabolism disease – biliary copper excretion is markedly reduced. As a result copper accumulates in lysosomes of hepatocytes, eventually leading to liver cirrhosis, chronic hepatitis and premature death. CT disease manifestation starts between 2 and 6 years of age. First symptoms are problems with food intake, sickness and weight loss.

Mutation that causes CT disease 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: SOP176-CT, ASA-PCR

Date of issue: 06.02.2021
Date of testing: 01.02.2021 - 06.02.2021
Approved by: Mgr. Martina Šafrová, Laboratory Manager

verified and certified document
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