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genetic laboratory

Result certificate #012345

Detection of c.2083C>T mutation in ITGA10 gene causing Canine Chondrodysplasia in Norwegian Elkhound and Karelian Bear Dog

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.2083C>T mutation in ITGA10 gene causing Canine Chondrodysplasia in Norwegian Elkhound and Karelian Bear Dog was tested. Chondrodysplasia is a genetic disorder of cartilage and bone development. The affected dogs show shortened limbs compared to healthy dogs. Further, it may occur skeletal abnormalities such as shorter protruding toes on the outer side of the front paws, bowed forelimbs, shortened vertebral bodies und substantially delayed ossification of carpal bones.

Mutation that causes chondrodysplasia 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), they are healthy but they can transmit the mutation on their offspring. In offspring of two heterozygous animals following genotype distribution can be expected: 25 % N/N (healthy non-carriers), 50 % N/P (healthy carriers) and 25 % P/P (affected).

Method: SOPAgriseq_canine, ngs, accredited method

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 GENOMIA genetic laboratory

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