

Result report certificate Detection of mutation in dog PRCD gene

Customer

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Sample

Sample: 27725
Name: ILIRIK MORETTO FIUMANO
Breed: Poodle Toy
Microchip: 191 100 000 643 937 HRV
Date of birth: 13.12.2013
Sex: male
Date received: 21.01.2014
Sample type: buccal swab

Result: N/P

Result codes:

N/N clear (normal homozygote)
N/P carrier (heterozygote)
P/P affected (mutated homozygote)

Explanation

Presence or absence of mutation 1298G>A in PRCD gene in CFA9 (canine chromosome 9) has been examined. This mutation induces PRA-prcd (Progressive Retinal Atrophy form Progressive Rod Cone Degeneration). Disease causes degeneration of retinal cells. Firstly, rods are affected and night blindness develops in the animal. Later, cones degenerate. That results in complete blindness of the animal. The age of onset of disease varies, but, generally, it cannot be recognized before the adulthood of the animal.

Mutation that causes Prcd-PRA 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 PRA-prcd mutation was found in following dog breeds: Am. Eskimo Dog, Austr. Cattle Dogs, Austr. Shepherd (normal, mini), Austr. Stumpy Tail Cattle Dog, Retriever (Chesapeake Bay, Golden, Labrador, Nova Scotia Duck Tolling), Chinese Crested Dog, Cockapoos, Cocker Spaniel (Am., Engl.), Basenji, Poodles (Dwarf, Miniature, Toy), Entlebucher Mountain Dog, Lapphund (Swedish, Finnish), Goldendoodle, Karelian Bear Dog, Kuvasz, Magyar Vizsla, Labradoodle, Lapponian Herder, Norwegian Elkhound, Papillon, Water Dog (Portuguese, Spanish), Terrier (Silky, Yorkshire). With lower probability, other breeds can also suffer from PRA-prcd.

Report date: 22.01.2014

Responsible person: Mgr. *Martina Šafrová*, Analyst

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