

Result report certificate

Detection of mutation in dog PRCD gene

Customer

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On June 23, 2011 a correction of the data. This document replaces the report published on June 6, 2011.

Sample

Sample: 8478

Name: Oliver Modrý květ

Breed: Chinese Crested Dog

Reg. number: ----

Microchip: 203098100209619

Date of birth: 08.05.2006

Sex: male

Date received: 31.05.2011

Sample type: buccal swab

Sampling confirmed by veterinarian.

Result: N/N

Result codes:

N/N clear (normal homozygote)

N/P carrier (heterozygote)

P/P affected (mutated homozygote)

Explanation

Mutation 1298G>A in PRCD gene in CFA9 (canine chromosome 9) has been examined. This mutation induces progressive retinal atrophy – prcd (progressive rod cone degeneration). Disease causes the degeneration of retinal cells in the eye. Firstly, rod cells are affected and the animal develops night blindness. Later, cone cells degenerate. That results in complete blindness of animal. The age of onset of disease varies, but, generally, it cannot be recognized before the adulthood of the animal.

Prcd-PRA is inherited as an autosomal recessive trait. That means the disease affects dogs with P/P genotype only. The dogs with P/N 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 be also affected by PRA-prcd.

Report date: 06.06.2011

Responsible person: Mgr. Markéta Dajbychová, Analyst



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