

## Result certificate #012345

Detection of c.2262\_c.2263insA mutation in CCDC66 gene causing EO PRA in Portuguese Water Dogs

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.2262\_c.2263insA mutation in CCDC66 gene causing early onset variant (EO PRA) in Portuguese Water Dogs was tested. Clinical signs of EO PRA begin to appear as early as between 2 and 3 years of age. The disease manifests itself with progressively worsening vision, both in dim light and in good light conditions. Tracking of moving objects is also difficult. In affected dogs, ophthalmoscopic changes such as tapetal hyperreflectivity, diffuse vascular attenuation, optic disc pallor, and multifocal depigmentation in the non-tapetal fundus are gradually observed.

Mutation that causes EO PRA is inherited autosomally recessively which means that the disease develops only in those dogs who inherit mutated allele from both parents; 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: 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







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