

Result certificate #012345

Detection of c.3079G>T mutation in COL4A5 gene causing Nephritis in Samoyeds

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: Xn/Y

Explanation

Presence or absence of c.3079G>T mutation in COL4A5 gene causing Nephritis in Samoyeds was tested. Nephritis is an inflammatory disease of the kidneys. It is manifested by the presence of protein in the urine (proteinuria) and rapidly progressive kidney failure, which is fatal. Affected dogs usually die by one year of age.

The causal mutation of Nephritis is X-linked. This means that it is localized on the X chromosome. Males have an X and a Y chromosome, so they can only be healthy (Xn/Y) or affected (Xm/Y). Females have two X chromosomes, so they can either be healthy (Xn/Xn), carriers (Xn/Xm) or affected (Xm/Xm). Female carriers do not show clinical signs but are able to pass the mutant allele to their offspring.

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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