## 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: 123456789012345
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). ( $\mathrm{N}=$ negative, $\mathrm{P}=$ positive )

## Explanation

Presence or absence of $c .10849 \mathrm{G}>$ T mutation in PRKDC gene causing severe combined immunodeficiency disease (SCID) in Jack Russell Terriers was tested. The disease is affecting the immunity of the organism, affected individuals are extremely susceptible to a wide range of pathogens.

Mutation that causes SCID 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: $25 \% \mathrm{~N} / \mathrm{N}, 25 \% \mathrm{P} / \mathrm{P}$ and $50 \% \mathrm{~N} / \mathrm{P}$.

Method: SOPAgriseq_canine, ngs
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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