

Detection of c.586C>T mutation in exon 2 of
SLC3A1 gene causing cystinuria in
Newfoundland and Landseer breeds

Customer: Michaela Štanglová, Spojovací 22, 257 22 Čerčany, Czech Republic

Sample:

Sample: 26-15828

Date received: 18.06.2026

Sample type: blood

Information provided by the customer

Name: Golden Nové Městečko

Breed: Landseer (European Continental type)

Microchip: 900 203 000 021 407

Reg. number: CMKU/LS/1358/25

Date of birth: 1.11.2025

Sex: female

Date of sampling: 15.06.2026

The identity of the animal has been checked by MVDr. Alois

Lázníčka, KVL 4879

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.586C>T mutation in exon 2 of SLC3A1 gene causing cystinuria in Newfoundland and Landseer breeds was tested. Due to high concentration of cystine, hard crystals of cystine can be formed in the urine of affected individuals. The crystals can cause uncomfortable health complications e.g. urinary deposits and/or kidney stones, which can ultimately lead to the obstruction of the urinary tract.

Mutation that causes cystinuria 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, 25 % P/P and 50 % N/P.

Method: SOP188-MPS-canine, MPS, accredited method

Date of issue: 25.06.2026

Date of testing: 18.06.2026 - 25.06.2026

Approved by: Mgr. Markéta Dajbychová, Deputy Laboratory Manager

Genomia is accredited in compliance with ISO/IEC 17025:2018 under #1549

Genomia s.r.o, Republikánská 6, 31200 Plzeň, Czech Republic

www.genomia.cz, laborator@genomia.cz, tel: +420 373 749 999



Report verification code is: ERFE-RT3T-Q7NF-63B9-2M24. You can verify report online at www.genomia.cz

Without a written consent by the lab, the report must not be reproduced unless as a whole.

The result refers only to the tested sample, as received. Genomia is not responsible for the accuracy of the information provided by the customer.