GENOMIA
genetic laboratory

Result certificate #012345

Detection of c.1930_1931del mutation in ABCB1 gene Multi-drug resistance in cats

Customer: Jan Novák, Dlouhá 1, 30000 Plzeň, Czech Republic
Sample:
Sample: 08-12346
Date received: 01.01.2008
Sample type: buccal swab

Information provided by the customer
Name: Madame Théophile DEMO
Breed: Persian cat
Date of birth: 31.12.1909
Reg. number: (CZ)ABCD EF 123/45/XYZ
Microchip: 123 456 789 012 345
Sex: female
Date of sampling: 01.01.2008
The identity of the animal has been checked.

SAMPLE

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.1930_1931del mutation in ABCB1 gene causing Multi-drug resistance 1 (MDR1) in cats was tested. MDR1 results in a higher risk of adverse reactions to P-glycoprotein substrates such as ivermectin and macrocyclic lactones. These substances are commonly found in flea and tick preventive products for cats and dogs. Clinical manifestations are neurological and include central nervous system depression, ataxia, tremors, salivation, vomiting, dilated pupils, respiratory disturbances and, in severe cases, coma or death.

Mutation that causes MDR1 is inherited autosomally recessively which means that the disease develops only in those cats who inherit mutated allele from both parents; disease affects cats with P/P genotype only. The cats 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_feline, MPS

Date of issue: 06.01.2008
Date of testing: 12.06.2008 - 06.01.2008
Approved by: Mgr. Martina Šafrová, Laboratory Manager

verified and certified document
GENOMIA genetic laboratory

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: 12AB-CD34-GENO-MIA0-EFGH. 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.