

## Result certificate #012345

Detection of gene variants of feline TYR gene (locus C) responsible for cat coat color

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: 123456789012345 Sex: female Date of sampling: 01.01.2008 The identity of the animal has been checked.

Result: Based on gene variants examination conclusion is C/c<sup>s</sup>

## Explanation

Presence of c.901G>A (p.G301R) a c.679G>T (p.G227W) of TYR gene variants was examined. The alleles of C-locus belong to the so-called Albino series; hierarchy of allels follows: C (full colour) >  $c^{b}$  (Burmese) =  $c^{s}$  (Siamese) > c (complete albino). Burmese and Siamese alleles are recessive, phenotype is manifested in individuals with two same alleles inherited from parents.

The C-allele produces the full colour, i.e. the maximum possible degree of pigmentation.

Variant c.901A (p.G301R) resulting in c<sup>s</sup>-allele (Siamese) causes reduction of coat pigmentation and colour change to Himalayan or Siamese. The eyes are blue.

Variant c.679T (p.G227W) resulting in c<sup>b</sup>-allele (Burmese) reduces partly the intensity of the pigmentation to Burmese colour. It is a coloration with marking, while the body colour is only slightly paler. The eyes are amber or yellow.

Individuals with  $c^{s}/c^{b}$ -genotype are intermediate in colour - mink.

The rare c-allele of TYR-gene resulting in a phenotype with white coat colour and blue eyes cannot be detected by this test.

Method: SOP173-TYR, PCR-RFLP

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



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 sample as received. Genomia is not responsible for the accuracy of the information provided by the customer.