

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: PREVIEW RESULT LINE

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^s-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^b-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: SOPAgriseq_feline, ngs

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



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