

Result certificate #012345

Detection of feline TYRP1 (locus B) gene variants influencing 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 genotype was determined B/B

Explanation

Presence or absence of gene variants c.[8C>G; 1262+5G>A] (b-allele causing chocolate coat color) and c.298C>T (b-allele causing cinnamon coat color) in TYRP1 gene (locus B) was examined. Three variant alleles of locus B were identified in following hierarchy: B>b>b. The dominant B-allele is original (wild type) allele and determines dark color.

The brown and cinnamon coat color is inherited autosomal recessively, i.e. the phenotype comes to expression only in cats which inherited these b-alleles from both parents. A cat with b/b genotype is chocolate-brown colored and a cat with b/b¹ genotype is cinnamon colored. A cat with b/b¹ genotype is brown colored, the phenotype is lighter than b/b cat, and is also a carrier of cinnamon hair coloration.

Existence of other unknown gene variants in TYRP1 gene responsible for brown coat color cannot be excluded.

Method: SOP172-TYRP1-cat, direct DNA sequencing

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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