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Result certificate #012345

Detection of feline MLPH (locus D) gene variant c.83delT influencing 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: D/d

Explanation

Presence of c.83delT gene variant in MLPH (melanophilin) gene influencing cat coat color was examined. MLHP gene (locus D – dilution) is responsible for density of pigment granules (eumelanine and feomelanine) in hair. Presence of gene variant c.83delT (d allele) in homozygous status (d/d) is leading to decreasing of pigment granules density in hair (for example black color is diluted to blue color). The presence of b/b-genotype (locus B) and simultanously d/d-genotype results in lilac color common in the British cat breed.

Phenotype expression of d-allele is inherited as autosomal recessive trait, i.e. the phenotype comes to expression only in cats that inherited the d-allele from both parents (result d/d). The heterozygous cats (reult D/d) are carriers of color dilution without any external manifestation. Cats with D/D result do not have predisposition to color dilution.

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

verified and certified document
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Genomia s.r.o, Republikánská 6, 31200 Plzeň, Czech Republic
www.genomia.cz, laborator@genomia.cz, tel: +420 373 749 999