

## Result certificate #034270:

Detection of c.-22G>A MLPH gene variants (locus D) influencing dog coat color by PCR-RFLP

## Sample

Sample: 13-14031

Name: Dog's Paradise Chocolate Chip

Breed: Australian labradoodle Reg. number: ALAEU-900 Microchip: 528210002601644 Date of birth: 18-11-2010

Sex: male

Date received: 04.06.2013 Sample type: buccal swab

## Customer

AMJ de Koning Trum Biezenmortelsestraat 2 5074 PD Biezenmortel Netherlands

Result: Based on mutation examination genotype was determined D/D

## Explanation

Presence of c.-22G>A MLPH gene variants was examined. It is a set of locus D (Dilution) alleles. MLPH gene controls density of pigment (eumelanin and pheomelanin) distribution in hair. Presence of c.-22A gene variant causes decline of pigments in hair; origin black coat color is diluted in to blue coat color, origin brown (red) coat color is changed to cream.

Phenotype of d allele is inherited in autosomal recessive trait. Color dilution is evident in d/d individuals, who inherited d-allele from both parents. Heterozygous D/d individuals has no color dilution, they are just carriers of d-allele. Final coat color is influenced by other loci (E, B, A, K).

Method: SOP47

Report date: 07.06.2013

Responsible person: Mgr. Markéta Dajbychová, Deputy Laboratory Manager

Day bychona

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