

## Result certificate #084538

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

## Sample

Sample: 16-27701 Name: Nikki Valatheca Breed: Great Swiss Mountain Dog Microchip: 953 010 000 206 316 Reg. number: CMKU/VSP/2310/14/16 Date of birth: 10.12.2014 Sex: female Date received: 05.10.2016 Sample type: blood The identity of the animal has been checked by MVDr. Aleš Jurovic Customer Lucie Macková Valšov 135 79201 Bruntál Czech Republic

## Result: 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.

Color dilution in different breeds of dogs can be also caused by other genes whose variations have not been described yet.

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: SOP175-MLPH, real-time ASA-PCR

Report date: 06.10.2016 Responsible person: Mgr. Martina Šafrová, Laboratory Manager



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