

**Sample**

Sample: 19-13527  
Name: Adina Dvůr Bažantnice  
Breed: Collie Smooth  
Microchip: 972 273 000 004 700  
Reg. number: CMKU/CK/1079/16/18  
Date of birth: 24.04.2016  
Sex: female  
Date received: 16.05.2019  
Sample type: blood  
The identity of the animal has been checked by  
MVDr. Michaela Oravská

**Customer**

Ing. Lucie Glaserová  
Doubek 109  
25101 Doubek  
Czech Republic

Result: N/N

**Explanation**

Presence of c.284G>T (M1), c.556\_571del16 (M3), c.559\_560dupGG (M4), c.578C>T (M5) FGF5 gene variants influencing coat length in dogs was examined.

- If the result is N/N - the dog does not carry any variant specific for long hair - the dog has short hair
- If the result is N/M1 or N/M3 or N/M4 or N/M5 – the dog carries one copy of the gene variant - the dog is short-haired, but it can give birth to long-haired offspring, if suitably crossed.
- If the result is M1/M1 or M3/M3 or M4/M4 or M5/M5 – the dog carries two same variants in the FGF5 gene - the dog is long-haired
- If the result is M1/M3, M1/M4, M1/M5, M3/M4, M3/M5, M4/M5 – the dog is long haired (dog inherited each variant from different parent – compound heterozygote carries two different FGF5 gene variants)

Long coat phenotype is inherited in autosomal recessive trait. Long coated dogs have two FGF5 gene variants in both alleles (each from different parent). In case of mating two FGF5 carriers, theoretically, 25% long coated offspring will be born. In connection with long coat phenotype allelic heterogeneity was observed, dogs may be compound heterozygotes for different variants. In some breeds, variant for long coat phenotype has not been identified yet.

Method: SOP173-FGF5rflp-dog, 172-FGF5, direct DNA sequencing

Report date: 23.05.2019

Responsible person: Mgr. Martina Šafrová, Laboratory Manager



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