

**Customer:** Lucie Glaserová, Doubek 109, 25101 Doubek, Czech Republic

**Sample:**

Sample: 21-27144

Date received: 06.10.2021

Sample type: blood

Information provided by the customer

**Name:** Bezinka z Modrého království

**Breed:** Collie Smooth

Microchip: 900 085 001 081 321

Reg. number: CMKU/CK/1647/20

Date of birth: 2.3.2020

Sex: female

Date of sampling: 04.10.2021

The identity of the animal has been checked by MVDr. Michaela Oravská, KVL 5097

**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 is 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

Date of issue: 15.10.2021

Date of testing: 06.10.2021 - 15.10.2021

Approved by: Mgr. Martina Šafrová, Laboratory Manager



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