

Customer: Jan Novák, Dlouhá 1, 30000 Plzeň, Czech Republic**Sample:**

Sample: 21-12345

Date received: 01.02.2021

Sample type: blood

Information provided by the customer

Name: Lassie DEMO**Breed:** Plemeno

Tattoo number: 1392013

Microchip: 123 456 789 012 345

Reg. number: REGQ12345

Date of birth: 1.1.2020

Sex: female

Date of sampling: 01.02.2021

The identity of the animal has been checked.

Result: I/i**Explanation**

Presence of c.151C>T variant of MFSD12 gene (locus I) influencing coat color of dogs by dilution of pheomelanin. The mutation affects the pheomelanin in the entire coat and its total absence or the presence of only a minor amount of this pigment causes a pure white or cream colour of dog's coat. However, the pigmentation of the nose, lips, eyes and skin remains unchanged, so we cannot say that these dogs are albinos. As it is not a monogenic trait the intensity of the dilution may differ in various dog breeds. Dogs with I/i genotype are carriers of pheomelanin dilution, dogs with i/i genotype have a manifestation of pheomelanin dilution, dogs with I/I genotype have undiluted pheomelanin.

Genotype i/i in brindled dogs is expressed by lighter red, however the black colour remains unchanged – the resulting colour is called reverse brindle. Black and tan dogs with genotype i/i have lighter tanning only. The while coat colour (e.g. in Samoyeds, White Swiss Shepherds, America Eskimo Dogs, Poodles, Bichons, Maltese dogs and many other dog breeds) occurs when there is a combination of extreme dilution of the pheomelanin and the absence of eumelanin (genotype e/e in MC1R gene, i.e. locus E).

Method: SOPAgriSeq_canine, ngs, accredited method

Date of issue: 06.02.2021

Date of testing: 01.02.2021 - 06.02.2021

Approved by: Mgr. Martina Šafrová, Laboratory Manager



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