GENOMIA
genetic laboratory

Result certificate #012345

Detection of e^G gene variant canine locus E responsible for coat color

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: EG/N

Explanation

Presence or absence of c.233G>T variant in MC1R gene was tested – that is e^G variant of locus E. Allele e^G (mutation in MC1R gene c.233G>T) is responsible for grizzle colour in Saluki, Barzoi, Polish Greyhound and domino colour in Afghan Hounds. Expression of e^G in other breeds is not excluded.

Locus E hierarchy expression is as follows: $E^M > E > e^G > e$. This test only gives information about the e^G variant, not about E locus as a whole.

If the genotype contains the e^G allele in combination with the E^M or E allele, which are dominant to it, the resulting phenotype will not show grizzle colouration. The grizzle and Domino effect will only occur when the e^G allele is combined with another e^G allele or the e1 allele. Grizzle and Domino colouration is expressed in different colour variants depending on which combination of genotypes the individual carries. The resulting grizzle colour is then determined by the genotype of loci A and K. Phenotypically, grizzle may appear as: classic grizzle, cream grizzle, shaded grizzle, agouti grizzle, brindle grizzle and faded black grizzle.

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

verified and certified document GENOMIA genetic laboratory

Genomia is accredited in compliance with ISO/IEC 17025:2018 under #1549
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