



# Certificate of DNA analysis of an animal in professional breeding programs

## Owner / Breeder

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## Animal and Sample:

**Species:** Dog  
**Breed:** Australian Shepherd  
**Name of the animal:** DIAMOND AIRE'S MAKE MY DAY  
**Sex:** Male **Date of birth:** 9.12.2013  
**Chip / Ring Nr.:** 981020009810962 **Tattoo number:**  
**Date of sample receipt:** 4.2.2025 00:00:00 **Reg. number:**  
**Date of result release:** 7.2.2025 15:14:30  
**Biological material:** Anti-coagulated blood  
**Sampled by:** veterinary doctor

The identity of the animal has been verified at the time of sampling by an independent person.

## Description of the molecular technology used:

Total DNA has been isolated from the sampled biological material. PCR amplification of all specified molecular targets (see table of this Document) has been followed by fragment analysis using ABI3500 capillary sequencer and bioinformatic analysis.

## Precise specification of the analyzed genetic abnormalities, results and their interpretation:

Genetic trait   Associated gene   Specification of the mutation	Genetic description of the result
Merle coat pattern   SILV   SINE insertion (m/Mc/Mc+/Ma/Ma+/M/Mh)	m/m/[M]

The size of the Merle allele: 267 bp (M)

### Interpretation of the genetic description and terminology:

**Wild type:** m/m – neither of the investigated alleles of the gene harbor SINE insertion

**Heterozygous mutation:** one of the investigated alleles harbor SINE insertion, the other is wild type (without SINE insertion)

**Compound heterozygous mutation:** both investigated alleles of the gene harbor a SINE insertion

**Homozygous mutation:** both investigated alleles of the gene harbor the same SINE insertion

**Cryptic Merle:** Mc – the length of SINE insertion ranges from 200 to 230 bp

**Mc+** – the length of SINE insertion ranges from 231 to 246 bp

**Atypical Merle:** Ma – the length of SINE insertion ranges from 247 to 254 bp

**Ma+** – the length of SINE insertion ranges from 255 to 264 bp

**Merle:** M – the length of SINE insertion ranges from 265 to 268 bp

**Harlequin Merle:** Mh – the length of SINE insertion ranges from 269 to 300 bp

The result has been approved by:

MUDr. Peková Soňa, Ph.D.

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**Result number:** CW556/11220

**Date of result release:** 7.2.2025

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Disclaimer: The results are pertinent only to the sample tested. The protocol can only be interpreted in its complete form unless officially approved by the laboratory.