

Coat Color and Trait Certificate

Call Name:	Molly	Laboratory #:	300314
Registered Name:	Emerald City Mischief Managed	Registration #:	-
Breed:	Australian Shepherd	Certificate Date:	July 8, 2022
Sex:	Female		
DOB:	Oct. 2021		

This canine's DNA showed the following genotype(s):

Coat Color/Trait Test	Gene	Genotype	Interpretation
Cu Locus (Curly Hair)	<i>KRT71</i>	Cu/Cu	Straight coat
D Locus (Dilute)	<i>MLPH</i>	D/d	Non-dilute (carries one copy of dilute)
I Locus (Intensity)	<i>MFSD12</i>	I/i	Normal intensity (carrier)
T Locus (Natural Bobtail)	<i>T</i>	t/T	Bobtail

Interpretation:

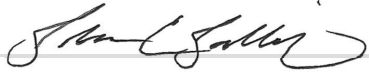
This dog carries two copies of **Cu** which results in a straight coat. However, the overall coat type of this dog is dependent on the combination of this dog's genotypes at the L, Cu, and IC loci. This dog will pass **Cu** on to 100% of its offspring.

This dog carries one copy of either the d¹ or d² mutation and has a D locus genotype of **D/d** which does not result in the "dilution" or lightening of the pigments that produce the dog's coat color. This dog will pass one copy of **D** to 50% of its offspring and one copy of **d** to 50% of its offspring. This dog can produce d/d offspring if bred to a dog that is also a carrier of a d mutation (D/d or d/d).

This dog carries one copy of the i mutation and has an I locus genotype of **I/i** which does not result in the lightening of the light, phaeomelanin pigments that produce the dog's coat color in an e/e dog. This dog will pass one copy of **I** to 50% of its offspring and one copy of **i** to 50% of its offspring. This dog can produce i/i offspring if bred to a dog that is also a carrier of an i mutation (I/i or i/i).

This dog carries one copy of the dominant **T** allele and one copy of the recessive **t** allele which produces a natural bobtail. This dog will pass on the **T** allele to 50% of its offspring and the **t** allele to 50% of its offspring.

Paw Print Genetics® has genetic counseling available to you at no additional charge to answer any questions about these test results, their implications and potential outcomes in breeding this dog.



Blake C Ballif, PhD
Laboratory & Scientific Director



Christina J Ramirez, PhD, DVM, DACVP
Medical Director

Paw Print Genetics® performed the testing on the dog listed on this certificate. The genes/traits reported here were selected by the client. Normal results do not exclude inherited mutations not tested in these or other genes that may cause variation in traits, medical problems or may be passed on to offspring. The results included in this report relate only to the items tested using the sample provided. These tests were developed and their performance determined by Paw Print Genetics. This laboratory has established and verified the test(s)' accuracy and precision with >99.9% sensitivity and specificity. The presence of mosaicism may not be detected by this test. Non-paternity may lead to unexpected results. This is not a breed identification test. Because all tests performed are DNA-based, rare genomic variations may interfere with the performance of some tests producing false results. If you think any results are in error, please contact the laboratory immediately for further evaluation. In the event of a valid dispute of results claim, Paw Print Genetics will do its best to resolve such a claim to the customer's satisfaction. If no resolution is possible after investigation by Paw Print Genetics with the cooperation of the customer, the extent of the customer's sole remedy is a refund of the fee paid. In no event shall Paw Print Genetics be liable for indirect, consequential or incidental damages of any kind. Any claim must be asserted within 60 days of the report of the test results.