

## Coat Color and Trait Certificate

<b>Call Name:</b>	Maizy	<b>Laboratory #:</b>	277453
<b>Registered Name:</b>	Moonlit Acres Maid Marian	<b>Registration #:</b>	WALA00060052
<b>Breed:</b>	Australian Labradoodle	<b>Microchip #:</b>	956000013477583
<b>Sex:</b>	Female	<b>Certificate Date:</b>	Dec. 17, 2021
<b>DOB:</b>	Oct. 2020		

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

Coat Color/Trait Test	Gene	Genotype	Interpretation
A Locus (Agouti)	<i>ASIP</i>	$a^t/a^t$	Tricolor, black and tan
B Locus (Brown)	<i>TYRP1</i>	B/b	Black coat, nose and foot pads (carries one copy of brown)
E Locus (Apricot/Yellow/Red) - e (Common Variant Found in Many Breeds)	<i>MC1R</i>	e/e	Yellow/red
K Locus (Dominant Black)	<i>CBD103</i>	$K^B/k^Y$	No agouti expression allowed (carrier)
S Locus (White Spotting, Parti, or Piebald)	<i>MITF</i>	$S/s^P$	Limited white spotting, flash, parti, or piebald (carrier)

**Interpretation:**

This dog carries two copies of  $a^t$  which results in tan points and can also present as a black and tan or tricolor coat color. However, this dog's coat color is also dependent on the E, K, and B genes. The tan point coat color is only expressed if the dog is also E/E or E/e at the E locus and  $k^Y/k^Y$  at the K locus. This dog will pass on  $a^t$  to 100% of its offspring.

This dog carries one copy of one of the b mutations and has a B locus genotype of **B/b**. Thus, this dog typically will have a black coat, nose, and foot pads. However, this dog's coat color is dependent on the genotypes of many other genes. This dog will pass one copy of **B** to 50% of its offspring and one copy of **b** to 50% of its offspring. This dog can produce b/b offspring if bred to a dog that is also a carrier of a b mutation (B/b or b/b). Depending on the breed, b/b dogs may be referred to as brown, chocolate, liver or red.

This dog carries two copies of **e** which inhibits production of black pigment. The coat color of this dog will be yellow/red (including shades of white, cream, yellow, apricot or red). This dog will pass **e** on to 100% of its offspring.

This dog carries one copy of  $K^B$  and one copy of  $k^Y$  which prevents expression of the agouti gene (A locus) and allows for solid eumelanin (black pigment) production in pigmented areas of the dog. However, this dog's coat color is also dependent on its genotypes at the E and B genes. This dog will pass on  $K^B$  to 50% of its offspring and  $k^Y$  to 50% of its offspring.

This dog carries one copy of **S** and one copy of  $s^P$  which results in limited white spotting, flash, parti, or piebald coat color due to the co-dominance of **S** and  $s^P$ . This dog will pass on one copy of **S** to 50% of its offspring and one copy of  $s^P$  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



**Casey R Carl, DVM**  
Associate Medical Director

Normal results do not exclude inherited mutations not tested in these or other genes that may cause medical problems or may be passed on to offspring. These tests were developed and their performance determined by Paw Print Genetics<sup>®</sup>. This laboratory has established and verified the tests' accuracy and precision. Because all tests performed are DNA-based, rare genomic variations may interfere with the performance of some tests producing false results. If you think these 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.