

## Coat Color and Trait Certificate

<b>Call Name:</b>	GiGi	<b>Laboratory #:</b>	247631
<b>Registered Name:</b>	-	<b>Registration #:</b>	-
<b>Breed:</b>	Poodle	<b>Certificate Date:</b>	July 28, 2021
<b>Sex:</b>	Female		
<b>DOB:</b>	March 2021		

**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 (does not carry brown)
E Locus (Apricot/Yellow/Red) - e (Common Variant Found in Many Breeds)	<i>MC1R</i>	E/e	Black (carries yellow/red)
K Locus (Dominant Black)	<i>CBD103</i>	$k^Y/k^Y$	Agouti expression allowed
M Locus (Merle)	<i>PMEL</i>	m/m	Non merle

### 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 does not carry any copies of the  $b^a$ ,  $b^c$ ,  $b^d$  or  $b^s$  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 100% of its offspring and cannot produce b/b dogs.

This dog carries one copy of **E** and one copy of **e** which allows for the production of black pigment. However, this dog's coat color is also dependent on the K, A, and B genes. This dog will pass **E** on to 50% of its offspring and **e** to 50% of its offspring, which can produce a yellow/red coat (including shades of white, cream, yellow, apricot or red) if inherited with another copy of **e**.

This dog carries two copies of  $k^Y$  which allows for the expression of the agouti gene (A locus) which can result in a variety of coat colors including sable/fawn, tricolor, tan points, black or brown. However, this dog's coat color is dependent on its genotypes at the E, A and B genes. This dog will pass on  $k^Y$  to 100% of its offspring.

This dog carries two copies of **m**, the non-merle, wild-type allele of the *PMEL* gene, and, therefore, does not have a merle coat color/pattern. This dog will pass on one copy of the **m** allele to 100% 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.