

Coat Color and Trait Certificate

Call Name:	Teddy	Laboratory #:	383031
Registered Name:	-	Registration #:	-
Breed:	Goldendoodle	Certificate Date:	Feb. 20, 2023
Sex:	Male		
DOB:	Dec. 2022		

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

Coat Color/Trait Test	Gene	Genotype	Interpretation
A Locus (Agouti)	<i>ASIP</i>	a^w/a^t	Wolf sable/gray (carries tricolor/black and tan)
B Locus (Brown)	<i>TYRP1</i>	B/B	Black coat, nose and foot pads (does not carry brown)
Cu Locus (Curly Hair)	<i>KRT71</i>	Cu/Cu^C	Wavy/Curly coat (carrier)
D Locus (Dilute)	<i>MLPH</i>	D/D	Non-dilute (does not carry dilute)
E Locus - e (Apricot/Cream/Red/Yellow, Common Variant Found in Many Breeds)	<i>MC1R</i>	e/e	Yellow/red
IC Locus (Improper Coat/Furnishings)	<i>RSPO2</i>	F/F	Furnishings
K Locus (Dominant Black)	<i>CBD103</i>	K^B/k^Y	No agouti expression allowed (carrier)
M Locus (Merle)	<i>PMEL</i>	m/m	Non merle
S Locus (White Spotting, Parti, or Piebald)	<i>MITF</i>	S/S	No white spotting, flash, parti, or piebald
SD Locus (Shedding)	<i>MC5R</i>	sd/sd	Low shedding

Interpretation:

This dog carries one copy of a^w and one copy of a^t which results in a “wolf” sable/gray coat color. However, this dog’s coat color is also dependent on the E, K, and B genes. The “wolf” sable/gray 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 which allows for agouti gene expression. This dog will pass on a^w to 50% of its offspring and a^t to 50% 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 Cu^C and one copy of **Cu** which results in a wavy or curly 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^C on to 50% of its offspring and **Cu** to 50% of its offspring.

This dog does not carry any copies of the d^1 or d^2 mutations 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 100% of its offspring and cannot produce d/d dogs.

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 does not carry the mutation for weak furnishings or improper coat and will therefore have furnishings (proper 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 **F** (furnishings, proper coat) 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 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.

This dog carries two copies of **S** which results in a solid coat with no white spotting, flash, parti, or piebald coat color. This dog will pass on one copy of **S** to 100% of its offspring.

This dog carries two copies of **sd** which has been associated with lower shedding. However, the overall degree of shedding for this dog is dependent on the combination of this dog's genotypes at the SD and IC loci. This dog will pass **sd** on 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.



Helen F Smith, PhD
Associate Laboratory 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.