

## Laboratory Report

### \*\* Amended Report \*\*

<b>Laboratory #:</b>	169967	<b>Call Name:</b>	Ernie
<b>Order #:</b>	75629	<b>Registered Name:</b>	Doodle Around Lenny
<b>Ordered By:</b>	Vicki McCormack	<b>Breed:</b>	Australian Labradoodle
<b>Ordered:</b>	March 19, 2020	<b>Sex:</b>	Male
<b>Received:</b>	March 23, 2020	<b>DOB:</b>	Nov. 2019
<b>Reported:</b>	April 8, 2020	<b>Registration #:</b>	WALA00023239
<b>Amended:</b>	April 14, 2020	<b>Microchip #:</b>	933000320166720

### Results:

Disease	Gene	Genotype	Interpretation
Degenerative Myelopathy	<i>SOD1</i>	WT/WT	Normal (clear)
Exercise-Induced Collapse	<i>DNM1</i>	WT/WT	Normal (clear)
Hereditary Nasal Parakeratosis	<i>SUV39H2</i>	WT/WT	Normal (clear)
Neonatal Encephalopathy with Seizures	<i>ATF2</i>	WT/WT	Normal (clear)
Progressive Retinal Atrophy, Cone-Rod Dystrophy 4	<i>RPGRIP1</i>	WT/WT	Normal (clear)
Progressive Retinal Atrophy, Progressive Rod-Cone Degeneration	<i>PRCD</i>	WT/WT	Normal (clear)
Retinal Dysplasia/Oculoskeletal Dysplasia 1	<i>COL9A3</i>	WT/WT	Normal (clear)
Von Willebrand Disease I	<i>VWF</i>	WT/WT	Normal (clear)

WT, wild type (normal); M, mutant; Y, Y chromosome (male)

### Interpretation:

Molecular genetic analysis was performed for eight specific mutations reported to be associated with disease in dogs. We identified two normal copies of the DNA sequences in the mutations tested.

### Recommendations:

No mutations were identified. Thus, this dog is not at an increased risk for the diseases caused by or associated with the mutations tested. Because this dog is "clear" of these mutations, this dog will only pass the normal genes on to its offspring. 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. 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.

*\*Note: At the client's request, this laboratory report and accompanying Canine Genetic Health Certificate® were amended on April 14, 2020 to update the call name for this dog.*

## Coat Color and Trait Certificate

<b>Call Name:</b>	Blue Camo	<b>Laboratory #:</b>	165534
<b>Registered Name:</b>	-	<b>Registration #:</b>	-
<b>Breed:</b>	Australian Labradoodle	<b>Microchip #:</b>	933000320166720
<b>Sex:</b>	Male	<b>Certificate Date:</b>	March 2, 2020
<b>DOB:</b>	Nov. 2019		

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

Coat Color/Trait Test	Gene	Genotype	Interpretation
A Locus (Agouti)	<i>ASIP</i>	$a^t/a$	Tricolor, black and tan (carries bicolor/solid)
E Locus (Yellow/Red)	<i>MC1R</i>	$E/e$	Black (carries 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)
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 one copy of  $a^t$  and one copy of  $a$  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 50% of its offspring and  $a$  to 50% of its offspring.

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 does not carry the mutation for 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) 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.



**Christina J Ramirez, PhD, DVM, DACVP**  
Medical 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.



---

**Christina J Ramirez, PhD, DVM, DACVP**  
Medical 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.