Paw Print Genetics
A division of Genetic Veterinary Sciences, Inc.

Coat Color and Trait Certificate

Call Name:	Rascal	**Laboratory #:**	245037
Registered Name:	Regen's Runs With Scissors	**Registration #:**	SS18177605
Breed:	Labrador Retriever	**Microchip #:**	941000021495168
Sex:	Male	**Certificate Date:**	July 21, 2021
DOB:	March 2020		

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

Coat Color/Trait Test	Gene	Genotype	Interpretation
B Locus (Brown)	*TYRP1*	B/B	Black coat, nose and foot pads (does not carry brown)
D Locus (Dilute)	*MLPH*	D/D	Non-dilute (does not carry dilute)
E Locus (Apricot/Yellow/Red) - e (Common Variant Found in Many Breeds)	*MC1R*	E/e	Black (carries yellow/red)

Interpretation:

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 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 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**.

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