

## Customer & Pet Information

Call Name	-	DOB	July 13, 2022
Registered Name	Lachlan's Ready To Reign	Registration #	SS35756201
Breed	Labrador Retriever	Tattoo	-
Sex	Female	Microchip	-
Ordered By	American Kennel Club	Laboratory #	459281
		Lab Sample ID	47850604
		AKC Sample ID	40003319
		Report Date	Aug. 6, 2024

## Explanation of Results

<b>Normal</b>	A 'Normal' result means that your dog does not have the mutation that causes the associated genetic disease.
<b>Carrier</b>	A 'Carrier' result indicates that your dog has inherited one copy of the mutation that has been reported to cause this genetic disease. Your dog may not be clinically affected by this mutation because two copies of the mutation are usually required to cause disease.
<b>Carrier / At-Risk</b>	A 'Carrier / At-Risk' result indicates that your dog inherited one copy of the mutation that has been reported to cause this genetic disease. Based on the mode of genetic inheritance for this particular disease, inheriting one mutant copy of the gene may result in the disease. Dogs with one copy of the mutation may have a milder phenotype as compared to dogs with two copies of this mutation.
<b>At-Risk / Affected</b>	An 'At-Risk / Affected' result indicates that your dog inherited one or two copies of the mutation that has been reported to cause this genetic disease. Based on the mode of genetic inheritance for this particular disease, inheriting one or two mutant copies of the gene may result in the disease.

## No Result

'No Result' indicates that we were unable to obtain a genotype for your dog for this specific disease or trait and does not mean that your dog is a carrier or at-risk for this disease. There are a variety of reasons why a specific test may not provide a reportable result. Unique variations in the genetic code of some individuals may exist and cause certain regions of the genome to not perform properly with a specific test. In addition, suboptimal sampling of the dog's cheek cells could also result in poor sample performance due to inadequate cell counts, bacterial and fungal growth, or the presence of other test inhibitors. Dogs with at least 90% of the test results are determined to be acceptable and reportable. If your dog has an unacceptable level of tests with no results, you will be contacted for a new sample to repeat the testing.

Please review our testing terms and disclaimers regarding your results.

WT: wild type (normal) M: mutant Y: Y chromosome (male)

## Breed Profile

Disease Name	Genotype	Interpretation
Centronuclear Myopathy	WT/WT	Normal (Clear)
Cone Degeneration (Labrador Retriever Type)	WT/WT	Normal (Clear)
Congenital Myasthenic Syndrome (Labrador Retriever Type)	WT/WT	Normal (Clear)
Cystinuria (Labrador Retriever Type)	WT/WT	Normal (Clear)
Degenerative Myelopathy	WT/WT	Normal (Clear)
Degenerative Myelopathy (Bernese Mountain Dog Variant)	0	
Degenerative Myelopathy (Common Variant)	0	
Ehlers-Danlos Syndrome (Labrador Retriever Type), Variant 1	WT/WT	Normal (Clear)
Ehlers-Danlos Syndrome (Labrador Retriever Type), Variant 2	WT/WT	Normal (Clear)
Elliptocytosis	WT/WT	Normal (Clear)
Exercise-Induced Collapse	WT/WT	Normal (Clear)
Hereditary Nasal Parakeratosis (Labrador Retriever Type)	WT/WT	Normal (Clear)
Hyperuricosuria	WT/WT	Normal (Clear)
Ichthyosis (Golden Retriever Type 1)	WT/WT	Normal (Clear)
Intervertebral Disc Disease Risk Factor and Chondrodystrophy (CDDY with IVDD)	WT/WT	Normal (Clear)
Laryngeal Paralysis and Polyneuropathy (Leonberger Type 3)	WT/WT	Normal (Clear)
Macular Corneal Dystrophy (Labrador Retriever Type)	WT/WT	Normal (Clear)
Myotonia Congenita (Labrador Retriever Type)	WT/WT	Normal (Clear)
Myotubular Myopathy 1 (Labrador Retriever Type)	WT/WT	X-Linked Female Normal
Narcolepsy (Labrador Retriever Type)	WT/WT	Normal (Clear)

Progressive Retinal Atrophy, Cone-Rod Dystrophy 4	WT/WT	Normal (Clear)
Progressive Retinal Atrophy, Golden Retriever 2	WT/WT	Normal (Clear)
Progressive Retinal Atrophy, Progressive Rod-Cone Degeneration (prcd)	WT/WT	Normal (Clear)
Pyruvate Kinase Deficiency (Labrador Retriever Type)	WT/WT	Normal (Clear)
Retinal Dysplasia/Oculoskeletal Dysplasia 1	WT/WT	Normal (Clear)
Skeletal Dysplasia 2	WT/WT	Normal (Clear)
Stargardt Disease	WT/WT	Normal (Clear)
Ullrich Congenital Muscular Dystrophy (Labrador Retriever Type 1)	WT/WT	Normal (Clear)
Ullrich Congenital Muscular Dystrophy (Labrador Retriever Type 2)	WT/WT	Normal (Clear)

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## Coat Colors & Traits

Trait Name	Genotype	Interpretation
A Locus (Agouti)	$a^t/a^t$	Tricolor, black and tan
A <sup>s</sup> Locus (Saddle Tan)	N/N	No saddle tan/creeping tan
B Locus (Brown)	B/B	Black coat, nose and foot pads (does not carry brown)
B Locus (Brown) - $b^a$	0	
B Locus (Brown) - $b^c$	0	
B Locus (Brown) - $b^d$	0	
B Locus (Brown) - $b^h$	0	
B Locus (Brown) - $b^e$	0	
B Locus (Brown) - $b^s$	0	
Brachycephaly	BR/BR	Likely medium to long muzzle
Chondrodysplasia (CDPA)	cd/cd	Likely typical leg length
Co Locus (Cocoa, French Bulldog Type)	CO/CO	Black coat, nose and foot pads (does not carry cocoa)

<b>Cu Locus (Curly Hair)</b>	<b>Cu/Cu</b>	<b>Straight coat</b>
<b>D Locus (Dilute)</b>	<b>D/D</b>	<b>Non-dilute (does not carry dilute)</b>
D Locus (Dilute) - d <sup>1</sup>	0	
D Locus (Dilute) - d <sup>2</sup>	0	
D Locus (Dilute) - d <sup>3</sup>	0	
<b>E Locus</b>	<b>E<sup>m</sup>/e<sup>1</sup></b>	<b>Melanistic Mask - Carrier (Yellow/Red)</b>
E Locus - E <sup>m</sup> (Melanistic Mask)	1	
E Locus - E <sup>g</sup> (Grizzle, Afghan Hound Type)	0	
E Locus - E <sup>h</sup> (Sable, Cocker Spaniel Type)	0	
E Locus - e <sup>A</sup> (Ancient Red, Spitz and Scent Hound Type)	0	
E Locus - e <sup>1</sup> (Yellow/Red)	1	
E Locus - e <sup>2</sup> (Cream, Australian Cattle Dog Type)	0	
E Locus - e <sup>3</sup> (White, Alaskan and Siberian Husky Type)	0	
<b>H Locus (Harlequin, Great Dane Type)</b>	<b>h/h</b>	<b>No harlequin</b>
<b>Hairlessness</b>	<b>Rh/Rh</b>	<b>Coated</b>
Hairlessness (American Hairless Terrier Type) - rh <sup>1</sup>	0	
Hairlessness (Scottish Deerhound Type) - rh <sup>2</sup>	0	
<b>Hr Locus (FOXI3 Hairless Gene Test, Mexican Hairless, Peruvian Hairless and Chinese Crested Type)</b>	<b>hr/hr</b>	<b>Coated</b>
<b>I Locus (Intensity)</b>	<b>I/I</b>	<b>Normal intensity</b>
<b>IC Locus (Improper Coat/Furnishings)</b>	<b>IC/IC</b>	<b>No furnishings, improper coat</b>
<b>K Locus (Dominant Black)</b>	<b>K<sup>B</sup>/K<sup>B</sup></b>	<b>No agouti expression allowed</b>

<b>L Locus (Long Hair/Fluffy)</b>	<b>Sh/Sh</b>	<b>Shorthaired (does not carry long hair)</b>
L Locus (Long Hair/Fluffy) - Lh <sup>1</sup>	0	
L Locus (Long Hair/Fluffy) - Lh <sup>2</sup>	0	
L Locus (Long Hair/Fluffy) - Lh <sup>3</sup>	0	
L Locus (Long Hair/Fluffy) - Lh <sup>4</sup>	0	
<b>M Locus (Merle)</b>	<b>m/m</b>	<b>Non merle</b>
<b>Polydactyly (Common Variant)</b>	<b>pd/pd</b>	<b>Normal (typical) toes (likely no hind dewclaws)</b>
<b>Polydactyly (Great Pyrenees Type)</b>	<b>WT/WT</b>	<b>Normal (Clear)</b>
<b>R Locus (Roan/Ticked)</b>	<b>R<sup>Ti</sup>/R<sup>Ti</sup></b>	<b>Ticked</b>
R Locus (Roan/Ticked) - R <sup>Ti</sup>	2	
R Locus (Roan/Ticked) - R	0	
<b>S Locus (White Spotting, Parti, or Piebald)</b>	<b>S/S</b>	<b>No white spotting, flash, parti, or piebald</b>
<b>SD Locus (Shedding)</b>	<b>SD/SD</b>	<b>High shedding</b>
<b>Sex Determination</b>	<b>X/X</b>	<b>Female</b>
<b>Social Behavior</b>	<b>WT/WT; M/M</b>	<b>May demonstrate more social behavior</b>
Social Behavior, Variant 1	0	
Social Behavior, Variant 2	2	
<b>T Locus (Natural Bobtail)</b>	<b>t/t</b>	<b>Normal tail</b>

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