

Customer & Pet Information

Call Name	-	DOB	July 17, 2022
Registered Name	Blackforks Telling It Like It Is At State Of Grace	Registration #	SS36109903
Breed	Labrador Retriever	Tattoo	-
Sex	Female	Microchip	-
Ordered By	American Kennel Club	Laboratory #	459280
		Lab Sample ID	47850713
		AKC Sample ID	40003320
		Report Date	Aug. 5, 2024

Explanation of Results

Normal	A 'Normal' result means that your dog does not have the mutation that causes the associated genetic disease.
Carrier	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.
Carrier / At-Risk	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.
At-Risk / Affected	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)

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

Coat Colors & Traits

Trait Name	Genotype	Interpretation
A Locus (Agouti)	a^t/a	Tricolor, black and tan (carries bicolor/solid)
A^s Locus (Saddle Tan)	N/A^s	Saddle tan/creeping tan (non saddle tan carrier)
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)
Cu Locus (Curly Hair)	Cu/Cu	Straight coat
D Locus (Dilute)	D/D	Non-dilute (does not carry dilute)
D Locus (Dilute) - d ¹	0	
D Locus (Dilute) - d ²	0	
D Locus (Dilute) - d ³	0	
E Locus	e¹/e¹	Yellow/Red
E Locus - E ^m (Melanistic Mask)	0	
E Locus - E ^g (Grizzle, Afghan Hound Type)	0	
E Locus - E ^h (Sable, Cocker Spaniel Type)	0	
E Locus - e ^A (Ancient Red, Spitz and Scent Hound Type)	0	
E Locus - e ¹ (Yellow/Red)	2	
E Locus - e ² (Cream, Australian Cattle Dog Type)	0	
E Locus - e ³ (White, Alaskan and Siberian Husky Type)	0	
H Locus (Harlequin, Great Dane Type)	h/h	No harlequin
Hairlessness	Rh/Rh	Coated
Hairlessness (American Hairless Terrier Type) - rh ¹	0	
Hairlessness (Scottish Deerhound Type) - rh ²	0	
Hr Locus (FOXI3 Hairless Gene Test, Mexican Hairless, Peruvian Hairless and Chinese Crested Type)	hr/hr	Coated
I Locus (Intensity)	I/I	Normal intensity
IC Locus (Improper Coat/Furnishings)	IC/IC	No furnishings, improper coat

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

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



Copper Toxicosis (CT)

Case Number: 191288

Owner: Andrea Werkheiser

Canine Information

DNA ID Number: **262010**

Call Name: **Storie**

Sex: **Female**

Birthdate: **07/17/2022**

Breed: **Labrador Retriever**

Coat Color: **Yellow**

Registered Name: **Blackfork's Telling it Like it is at State of Grace**


Registration Number: **SS36109903**

Microchip/Tattoo: **900215005286171**

Report Date: **8/29/2024**

DNA Result: **ATP7A Protective Mutation +/- Double Positive Female**
ATP7B Disease Mutation +/- Carrier/At Risk

These results are based on data obtained from analysis of unique DNA loci in accordance with the standards and protocols set forth by DDC Veterinary. The accuracy of the result is based on the information and the quality of samples provided by the client. DDC Veterinary does not assume responsibility of errors due to mislabeled or incorrectly sampled submissions.


Matt Shaunessy, Senior Scientist