

ORTHOPEDIC FOUNDATION FOR ANIMALS, INC.

RIOROCK'S BLACK MOUNTAIN BLUES
registered name

LABRADOR RETRIEVER
breed

film/test/lab #

900219000114519
tattoo/microchip/DNA profile

2378900
application number

08/15/2023
date of report

RESULTS:

Based upon the radiograph submitted, the consensus was that no evidence of hip dysplasia was recognized. The hip joint conformation was evaluated as:

SS28593501
registration no.

F
sex

07/24/2021
date of birth

24
age at evaluation in months



A Not-For-Profit Organization

LR-270285E24F-C-VPI
O.F.A. NUMBER

This number issued with the right to correct or revoke by the Orthopedic Foundation for Animals.

EXCELLENT

owner HEATHER HORN



OFA eCert



Verify QR scan

G.G.KELLER, D.V.M., M.S., DACVR
CHIEF OF VETERINARY SERVICES

www.ofa.org

This electronic OFA certificate was generated on: 08/15/2023

This certification can be verified on the OFA website by entering the dog's registration number into the orange search box located at the top of the page or by scanning the QR code above.

If there are any errors on this certificate, please email CORRECTIONS@OFFA.ORG to request a correction.

Orthopedic Foundation for Animals, Inc.
2300 E. Nifong Blvd.
Columbia, MO 65201-3806

OFA website: www.ofa.org
E-mail address: ofa@offa.org
Phone number: 573-442-0418
Fax number: 573-875-5073

ORTHOPEDIC FOUNDATION FOR ANIMALS, INC.

RIOROCK'S BLACK MOUNTAIN BLUES
registered name

LABRADOR RETRIEVER
breed

film/test/lab #

900219000114519
tattoo/microchip/DNA profile

2378900
application number

08/15/2023
date of report

RESULTS:

Based upon the radiograph submitted, the consensus was that no evidence of elbow dysplasia was recognized.

SS28593501
registration no.

F
sex

07/24/2021
date of birth

24
age at evaluation in months



A Not-For-Profit Organization

LR-EL117551F24-C-VPI
O.F.A. NUMBER

This number issued with the right to correct or revoke by the Orthopedic Foundation for Animals.

NORMAL

owner

HEATHER HORN
[REDACTED]

OFA eCert



Verify QR scan

G.G. Keller, DVM

G.G.KELLER, D.V.M., M.S., DACVR
CHIEF OF VETERINARY SERVICES

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ORTHOPEDIC FOUNDATION FOR ANIMALS, INC.

RIOROCK'S BLACK MOUNTAIN BLUES
registered name

LABRADOR RETRIEVER
breed

24ENHN
film/test/lab #

900219000114519
tattoo/microchip/DNA profile

2378900
application number

07/24/2024
date of report

RESULTS:

Based upon the exam dated 07/13/2024, this dog has been found to be free of observable inherited eye disease and has been issued an Eye Certification Registry Number which is valid for one year from the time of the exam.

SS28593501
registration no.

F
sex

07/24/2021
date of birth

35
age at evaluation in months



A Not-For-Profit Organization



LR-EYE25962/35F-VPI
O.F.A. NUMBER

This number issued with the right to correct or revoke by the Orthopedic Foundation for Animals.

NORMAL

owner **HEATHER HORN**



OFA eCert



Verify QR scan

J.G. KELLER, DVM, MS, DACVR
CHIEF OF VETERINARY SERVICES

www.ofa.org

This electronic OFA certificate was generated on: 07/24/2024

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OFA website: www.ofa.org
E-mail address: ofa@offa.org
Phone number: 573-442-0418
Fax number: 573-875-5073

Dog Information

Riorock's Black Mountain Blues ('Bessie) Female
 NAME SEX
 Labrador Retriever July 24th, 2021
 BREED ANCESTRY DATE OF BIRTH
 American Kennel Club (AKC) SS28593501 900219000114519
 REGISTRATION MICROCHIP

Heather Horn
 OWNER NAME
 Canine Genetic Health Screen
 TEST
 February 23rd, 2024
 TEST DATE

BREED HEALTH TESTS

DISEASE	GENE	GENOTYPE	RESULT	TESTING RECOMMENDED BY
Centronuclear Myopathy, CNM	PTPLA	NN	Clear	
Degenerative Myelopathy, DM	SOD1A	GG	Clear	
Exercise-Induced Collapse, EIC	DNM1	GG	Clear	
Hereditary Nasal Parakeratosis, HNPk	SUV39H2	GG	Clear	
Hyperuricosuria and Hyperuricemia or Urolithiasis, HUU	SLC2A9 (Exon 5)	GG	Clear	
Macular Corneal Dystrophy, MCD	CHST6	CC	Clear	
Narcolepsy	HCRTR2	AA	Clear	
Progressive Retinal Atrophy, prcd	PRCD Exon 1	GA	1 Variant	
Pyruvate Kinase Deficiency	PKLR Exon 7 SNP Variant 1	CC	Clear	
Skeletal Dysplasia 2, SD2	COL11A2	GG	Clear	
Achromatopsia	CNGA3 (Exon 7 Deletion)	NN	Clear	
Alexander Disease	GFAP (Exon 4)	GG	Clear	
Canine Elliptocytosis	SPTB Exon 30	CC	Clear	
Congenital Myasthenic Syndrome, CMS	COLQ (Exon 14)	TT	Clear	
Golden Retriever Progressive Retinal Atrophy 2, GR-PRA2	TTC8 Exon 8	NN	Clear	

Dog Information

Riorock's Black Mountain Blues ('Bessie) Female
 NAME SEX

Labrador Retriever July 24th, 2021
 BREED ANCESTRY DATE OF BIRTH





American Kennel Club (AKC) SS28593501 900219000114519
 REGISTRATION MICROCHIP

Heather Horn
 OWNER NAME

Canine Genetic Health Screen
 TEST

February 23rd, 2024
 TEST DATE

BREED HEALTH TESTS

DISEASE	GENE	GENOTYPE	RESULT	TESTING RECOMMENDED BY
Myotubular Myopathy 1, X-linked Myotubular Myopathy, XL-MTM	MTM1 (Exon 7)	CC	Clear	
Progressive Retinal Atrophy, crd4/cord1	RPGRIP1 (Exon 2)	NN	Clear	
Stargardt Disease	ABCA4 Exon 28	NI	1 Variant	
Ullrich-like Congenital Muscular Dystrophy	COL6A3	GG	Clear	

Dog Information

Riorock's Black Mountain Blues ('Bessie)

NAME

TRAIT TESTS (1/3)

Coat Color	RESULT	GENETIC RESULT
E Locus (MC1R)	Can have a melanistic mask	E ^m e
K Locus (CBD103)	More likely to have a mostly solid black or brown coat	K ^B K ^B
Intensity Loci	No impact on coat pattern	Intermediate Red Pigmentation
A Locus (ASIP)	Not expressed	a ⁺ a ^t
D Locus (MLPH)	Dark areas of hair and skin are not lightened	DD
Cocoa (HPS3)	No co alleles, not expressed	NN
B Locus (TYRP1)	Black or gray hair and skin	BB
Saddle Tan (RALY)	Not expressed	ll
S Locus (MITF)	Likely to have little to no white in coat	SS
M Locus (PMEL)	No merle alleles	mm
R Locus (USH2A)	Likely no impact on coat pattern	rr

Dog Information

Riorock's Black Mountain Blues ('Bessie')
NAME

TRAIT TESTS (2/3)

Coat Color	RESULT	GENETIC RESULT
H Locus (Harlequin)	No harlequin alleles	hh
Other Coat Traits	RESULT	GENETIC RESULT
Furnishings (RSPO2)	Likely unfurnished (no mustache, beard, and/or eyebrows)	II
Coat Length (FGF5)	Likely short or mid-length coat	ShSh
Shedding (MC5R)	Likely heavy/seasonal shedding	CC
Coat Texture (KRT71)	Likely straight coat	CC
Hairlessness (FOXI3)	Very unlikely to be hairless	NN
Hairlessness (SGK3)	Very unlikely to be hairless	NN
Oculocutaneous Albinism Type 2 (SLC45A2)	Likely not albino	NN
Other Body Features	RESULT	GENETIC RESULT
Muzzle Length (BMP3)	Likely medium or long muzzle	CC
Tail Length (T)	Likely normal-length tail	CC
Hind Dewclaws (LMBR1)	Unlikely to have hind dew claws	CC

Dog Information

Riorock's Black Mountain Blues ('Bessie')
NAME

TRAIT TESTS (3/3)

Other Body Features	RESULT	GENETIC RESULT
Chondrodysplasia (Chr. 18 FGF4 Retrogene)	Not indicative of chondrodysplasia (normal leg length)	NN
Blue Eye Color (ALX4)	Less likely to have blue eyes	NN
Back Muscling & Bulk, Large Breed (ACSL4)	Likely normal muscling	CC

Body Size	RESULT	GENETIC RESULT
Body Size (IGF1)	Intermediate	NI
Body Size (IGFR1)	Larger	GG
Body Size (STC2)	Larger	TT
Body Size (GHR - E191K)	Intermediate	GA
Body Size (GHR - P177L)	Larger	CC

Performance	RESULT	GENETIC RESULT
Altitude Adaptation (EPAS1)	Normal altitude tolerance	GG
Appetite (POMC)	Normal food motivation	NN

Canine Genetic Health Certificate™

Call Name:	Bessie	Laboratory #:	284674
Registered Name:	Riorock's Black Mountain Blues	Registration #:	SS28593501
Breed:	Labrador Retriever	Microchip #:	900219000114519
Sex:	Female	Certificate Date:	April 3, 2023
DOB:	July 2021		

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

Disease	Gene	Genotype	Interpretation
Copper Toxicosis (Labrador Retriever Type) ATP7A	<i>ATP7A</i>	WT/M	Carrier Female
Copper Toxicosis (Labrador Retriever Type) ATP7B	<i>ATP7B</i>	WT/WT	Normal (clear)
Progressive Retinal Atrophy, Progressive Rod-Cone Degeneration	<i>PRCD</i>	WT/M	Carrier
Stargardt Disease	<i>ABCA4</i>	WT/M	Carrier

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



Blake C Ballif, PhD
Laboratory & Scientific Director



Christina J Ramirez, PhD, DVM, DACVP
Medical Director

Paw Print Genetics® performed the testing on the dog listed on this certificate. See the Laboratory Report for interpretation and recommendations based on these findings. The genes/diseases reported here were selected by the client. 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. 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 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. Genetic counseling is available at Paw Print Genetics.