

ORTHOPEDIC FOUNDATION FOR ANIMALS, INC.

RUBY JEWELS HARLEY MAE
registered name

SS12578702
registration no.

LABRADOR RETRIEVER
breed

F
sex

film/test/lab #

05/28/2019
date of birth

981020041029717
tattoo/microchip/DNA profile

24
age at evaluation in months

2206543
application number



A Not-For-Profit Organization

06/17/2021
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:

LR-255605E24F-VPI
O.F.A. NUMBER

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

EXCELLENT

owner
RUSTY EMLING; SCOT JEFFERS
1270 10TH RD
BURLINGTON KS 66839

OFA eCert



Verify certificate
with 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: 06/17/2021

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.

RUBY JEWELS HARLEY MAE
registered name

SS12578702
registration no.

LABRADOR RETRIEVER
breed

F
sex

film/test/lab #

05/28/2019
date of birth

981020041029717
tattoo/microchip/DNA profile

24
age at evaluation in months

2206543
application number



A Not-For-Profit Organization

06/17/2021
date of report

LR-EL103882F24-VPI
O.F.A. NUMBER

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

RESULTS:

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

NORMAL

owner RUSTY EMLING; SCOT JEFFERS
1270 10TH RD
BURLINGTON KS 66839

OFA eCert



Verify certificate
with 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: 06/17/2021

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.

RUBY JEWELS HARLEY MAE
registered name

SS12578702
registration no.

LABRADOR RETRIEVER
breed

F
sex

696219
film/test/lab #

05/28/2019
date of birth

tattoo/microchip/DNA profile

19
age at evaluation in months

2206543
application number

01/14/2021
date of report



A Not-For-Profit Organization



LR-EYE21264/19F-NOPI
O.F.A. NUMBER

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

RESULTS:

Based upon the exam dated 01/06/2021, 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.

NORMAL

owner

RUSTY EMLING
3944 S PLUMMER AVE
CHANUTE KS 66720

OFA eCert



Verify certificate with 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: 01/14/2021

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



(/dog/harley994
/gallery)

HARLEY

Labrador Retriever

Chat
(/members
/messages?to=harley994)
 Compare
(/login?redirect=%2Fdog%2F

Smarter dog care powered by DNA

SHOP NOW

(https://embarkvet.com)

SUMMARY

FAMILY TREE

HEALTH

TRAITS

MATERNAL
HAPLOTYPE

PATERNAL
HAPLOTYPE

Health Summary



Good news!

Harley is not at increased risk for the genetic health conditions that Embark tests.

Breed-Relevant Genetic Conditions

16 variants not detected



Canine Elliptocytosis

Identified in Labrador Retrievers
Variant not detected

Pyruvate Kinase Deficiency

Identified in Labrador Retrievers
Variant not detected

Progressive Retinal Atrophy, prcd

Identified in Labrador Retrievers
Variant not detected

Golden Retriever Progressive Retinal Atrophy 2, GR-PRA2

Identified in Labrador Retrievers
Variant not detected

Progressive Retinal Atrophy, crd4/cord1

Identified in Labrador Retrievers
Variant not detected

Day Blindness

Identified in Labrador Retrievers
Variant not detected

Macular Corneal Dystrophy, MCD

Identified in Labrador Retrievers

Urate Kidney & Bladder Stones

Identified in Labrador Retrievers

Variant not detected

Alexander Disease

Identified in Labrador Retrievers

Variant not detected

Narcolepsy

Identified in Labrador Retrievers

Variant not detected

Centronuclear Myopathy, CNM

Identified in Labrador Retrievers

Variant not detected

Exercise-Induced Collapse, EIC

Identified in Labrador Retrievers

Variant not detected

X-Linked Myotubular Myopathy

Identified in Labrador Retrievers

Variant not detected

Congenital Myasthenic Syndrome, CMS

Identified in Labrador Retrievers

Variant not detected

Hereditary Nasal Parakeratosis, HNPk

Identified in Labrador Retrievers

Variant not detected

Skeletal Dysplasia 2, SD2

Identified in Labrador Retrievers

Variant not detected

Additional Genetic Conditions

179 variants not detected



Clinical Tools

1 variant not detected



Explore



Family Tree



Traits



Maternal Line





(/dog/harley994
/gallery)

HARLEY

Labrador Retriever

Chat
(/members
/messages?to=harley994)
 Compare
(/login?redirect=%2Fdog%2F

Smarter dog care powered by DNA

SHOP NOW

(https://embarkvet.com)

SUMMARY

FAMILY TREE

HEALTH

TRAITS

MATERNAL
HAPLOTYPE

PATERNAL
HAPLOTYPE

Explore the genetics behind your dog's appearance and size.



Base Coat Color

Dark or Light Fur

E (Extension) Locus

Light colored fur (cream to red)

Red Pigment Intensity LINKAGE

I (Intensity) Loci

Any pigmented fur likely yellow or tan

Brown or Black Pigment

B (Brown) Locus

Likely black colored nose/feet

Color Dilution

D (Dilute) Locus

Dark (non-dilute) skin



Coat Color Modifiers

Hidden Patterning

K (Dominant Black) Locus

No impact on coat color

Body Pattern

A (Agouti) Locus

No impact on coat pattern

Facial Fur Pattern

E (Extension) Locus

No dark fur anywhere

Saddle Tan

No impact on coat pattern

White Spotting

S (White Spotting) Locus

Likely to have little to no white in coat

Merle

M (Merle) Locus

No impact on coat color

Harlequin

No impact on coat pattern



Other Coat Traits

Furnishings LINKAGE

Likely unfurnished (no mustache, beard, and/or eyebrows)

Coat Length

Likely short or mid-length coat

Shedding

Likely heavy/seasonal shedding

Coat Texture

Likely straight coat

Hairlessness (Xolo type) LINKAGE

Very unlikely to be hairless

Hairlessness (Terrier type)

Very unlikely to be hairless

Oculocutaneous Albinism Type 2
LINKAGE

Likely not albino



Other Body Features

Muzzle Length

Likely medium or long muzzle

Tail Length

Likely normal-length tail

Hind Dew Claws

Unlikely to have hind dew claws

Back Muscling & Bulk (Large Breed)

Likely normal muscling

Eye Color LINKAGE

Less likely to have blue eyes



Body Size

Body Size 1

Intermediate

Body Size 2

Larger

Body Size 3

Larger

Body Size 4

Larger

Body Size 5

Larger



Performance

Altitude Adaptation

Normal altitude tolerance

Laboratory Report

Laboratory #: 222506
Order #: 100856
Ordered By: Rusty Emling
(Co-)Owner: Scott Jeffers
Ordered: Feb. 18, 2021
Received: March 2, 2021
Reported: March 12, 2021

Call Name: Harley
Registered Name: Ruby Jewels Harley Mae
Breed: Labrador Retriever
Sex: Female
DOB: May 2019
Registration #: ss12578702
Microchip #: NA
Tattoo: NA

Results:

Disease	Gene	Genotype	Interpretation
Copper Toxicosis (Labrador Retriever Type) ATP7A	ATP7A	WT/M	Carrier Female
Copper Toxicosis (Labrador Retriever Type) ATP7B	ATP7B	WT/WT	Normal (clear)

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

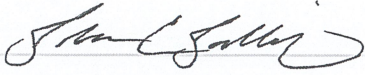
Interpretation:

Molecular genetic analysis was performed for two specific mutations reported to be associated with copper toxicosis in dogs. We identified two normal copies of the DNA sequences in the *ATP7B* gene tested. Thus, this dog is not at an increased risk for Copper Toxicosis (Labrador Retriever Type). In addition, we identified one normal copy and one mutant copy of the DNA sequences for *ATP7A*. Thus, this dog carries one copy of the protective mutation for Copper Toxicosis (Labrador Retriever Type).

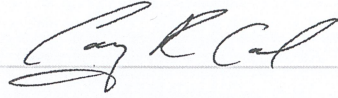
Recommendations:

No mutations were identified in the *ATP7B* gene. Thus, this dog is not at an increased risk for copper toxicosis. This dog was also tested for a genetic mutation of the *ATP7A* gene which partially protects against copper toxicosis in dogs that have inherited the *ATP7B* mutation described above. This dog carries one copy of the *ATP7A* gene mutation. The *ATP7A* gene mutation is more effective at decreasing the risk of copper toxicosis in male dogs than females and dogs that inherit two copies of the *ATP7A* mutation will have an even lesser risk of copper toxicosis than those inheriting just a single copy. However, since multiple factors (both genetic and environmental) play a role in causing copper toxicosis, the *ATP7A* mutation is not completely protective in either sex. Note: The *ATP7A* mutation is located on the X-chromosome. Since males only have a single X chromosome they can only inherit a single copy of this mutation.

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

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[®]. 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.