ORTHOPEDIC FOUNDATION FOR ANIMALS, INC.

JULIUS OF LOYAL HEART
registered name

PORTUGUESE WATER DOG
breed

film/test/lab #

991003000974736
tattoo/microchip/DNA profile

2627259
application number

05/13/2025
date of report

WS85926510
registration no.

M
sex

01/19/2025
date of birth

3
age at evaluation in months

A Not-For-Profit Organization

PW-EYE5657/3M-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 exam dated 05/09/2025, 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
LEON YODER
2242 PRIVATE RD 446
SUGARCREEK OH 44681

OFA eCert

Verify QR scan

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

www.ofa.org

This electronic OFA certificate was generated on: 05/13/2025

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@OFA.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@ofa.org
Phone number: 573-442-0418
Fax number: 573-875-5073

Animal Genetics

Generated on: 03/21/2025

3382 Capital Circle NE
Tallahassee, FL 32308

Genetic Testing Report
Merle

Submitted By	Owned By
Mary Ann Schrock 7429 County Road 77 Millersburg, OH 44654 USA	Mary Ann Schrock 7429 County Road 77 Millersburg, OH 44654 USA

Subject Dog

Name: Merle
Breed: Portuguese Water Dog
Phenotype: Chocolate
Sex: Male
Birth: 01/19/2025

Lab Reference #: 895610
Sample Date: 03/18/2025
Research Date: 03/18/2025
American Kennel Club: Ws85926510

Disorder Results(3 of 3)

CDDY	**N/N**	Clear: Dog is negative for the mutation associated with CDDY.
CDPA	**N/N**	Clear: Dog is negative for the CDPA mutation.
DM	**n/n**	Clear: Dog is negative for mutation associated with Degenerative Myelopathy.

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Genetic Summary Report

Animal Name: Julius

Owner:
Family Porties
Membership Number : Not assigned
Member Body/Breed Club: Not assigned

Approved Collection Method: No

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Genetic Summary Report

Scan to authenticate this Report online

Owner's details

Name:	Family Porties

Animal's Details

Registered Name :	
Pet Name :	Julius
Registration Number :	
Breed: :	Portuguese Water Dog
Microchip Number :	991003000974736
Sex: :	Intact Male
Date of Birth :	19th Jan 2025
Colour :	

Sample Collection Details

Case Number :	26US06280
Collected By :	
Approved Collection :	No
Sample Type :	SWAB

Test Details

Test Requested :	Portuguese Water Dog – Full Breed Profile
Pet Name :	Julius
Date of Test :	28th May 2026

Authorisation

Sample with Lab ID Number 26US06280 was received at Orivet Genetics, DNA was extracted and analysed with the following result reported:

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Orivet Genetic Analyst

Orivet
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Genetic Summary Report

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Health Tests Reported

Breed Sense	Diseases	Result
✓	Chondrodystrophy with Intervertebral Disc Disease Risk Factor (CDDY with IVDD)	NORMAL (N/N) - NO CHONDRODYSTROPHY (CDDY) VARIANT DETECTED (NO INCREASED IVDD RISK)
✓	Degenerative Myelopathy	NORMAL (N/N) - [NO VARIANT DETECTED]
✓	Early-Onset Progressive Retinal Atrophy	NORMAL (N/N) - [NO VARIANT DETECTED]
✓	Gangliosidosis (Portuguese Water Dog Type)	NORMAL (N/N) - [NO VARIANT DETECTED]
✓	Progressive Rod Cone Degeneration (prcd) - PRA	NORMAL (N/N) - [NO VARIANT DETECTED]
✓	Sex Determination - ZFXY	DOG IS MALE
	von Willebrand's Disease Type II	NORMAL (N/N) - [NO VARIANT DETECTED]

Owner's Name : Angela Miller **Pet Name :** Julius

Microchip Number 991003000974736 **Approved Collection Method :** No

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Genetic Summary Report

Scan to authenticate this Report online

Health Tests Reported

Breed Sense	Traits	Result
✓	A Locus (Agouti)	a^y/a - FAWN/RED/SABLE CARRIES SOLID BLACK/BICOLOUR
✓	B Locus - Bd, Bs, Bc [Various Breeds]	bb [BcBc BdBd bsbs] - BROWN SKIN PIGMENT (YELLOW ee DOGS WILL HAVE BROWN NOSES)
✓	Chondrodysplasia (CDPA)	NORMAL (N/N) - NO SHORTENED LEGS COMPARED TO CDPA DOGS
✓	Curly Coat/Hair Variant 1	NEGATIVE FOR THE R151W (C1) VARIANT - NOT SHOWING THE CURLY COAT PHENOTYPE
✓	D (Dilute) Locus	D/D - NO COPY OF MLPH-D ALLELE (DILUTE) - PIGMENT IS NORMAL
✓	E Locus - (Cream/Red/Yellow)	E/E - DOMINANT BLACK DOES NOT CARRY YELLOW/RED/WHITE
✓	EM (MC1R) Locus - Melanistic Mask	E^m/E^m - TWO MELANISTIC MASK ALLELES DEPENDS ON A and K SERIES
✓	Furnishings (RSPO2)	F/IC - CARRIES ONE COPY FURNISHINGS - WILL SHOW FURNISHINGS
✓	I Pheomelanin Locus Colour Intensity	i/i- TWO COPIES OF THE MFSD12 INTENSITY/CREAM ALLELE (LIKELY TO SHOW EXTREME DILUTION)
✓	K Locus (Dominant Black)	K/K - DOMINANT BLACK - SOLID [WILL NOT BE BRINDLED or EXPRESS AGOUTI]
✓	Shedding (MC5R)	shd/shd [HIGH SHEDDING] - TWO COPIES OF THE shd (MC5R) VARIANT DETECTED REFER TO FURNISHINGS (IC) FOR LEVEL OF SHEDDING
	Coat Composition CFA28 Gene (Double/Single Coat)	UDC/UDC - NO COPY OF THE DOUBLE COAT (DENSE UNDERCOAT) PHENOTYPE DETECTED
	Curly Coat/Hair Variant 2	NEGATIVE FOR THE KRT71 (p.Ser422ArgfsTer) VARIANT - NOT SHOWING THE CURLY COAT (C2) PHENOTYPE

Owner's Name : Angela Miller **Pet Name :** Julius

Microchip Number 991003000974736 **Approved Collection Method :** No

Glossary of Genetic Terms (Results)

CLARIFICATION OF GENETIC TESTING

The goal of genetic testing is to provide breeders with relevant information to improve breeding practices in the interest of animal health.However, genetic inheritance is not a simple process, and may be complicated by several factors. Below is some information to help clarify these factors.

The goal of genetic testing is to provide breeders with relevant information to improve breeding practices in the interest of animal health.However, genetic inheritance is not a simple process, and may be complicated by several factors. Below is some information to help clarify these factors.

1) Some diseases may demonstrate signs of what Geneticists call "genetic heterogeneity". This is a term to describe an apparently single condition that may be caused by more than one mutation and/or gene

2) It is possible that there exists more than one disease that presents in a similar fashion and segregates in a single breed. These conditions -although phenotypically similar - may be caused by separate mutations and/or genes.

3) It is possible that the disease affecting your breed may be what Geneticists call an "oligogenic disease". This is a term to describe the existence of additional genes that may modify the action of a dominant gene associated with a disease. These modifier genes may for example give rise to a variable age of onset for a particular condition, or affect the penetrance of a particular mutation such that some animals may never develop the condition.

The range of hereditary diseases continues to increase and we see some that are relatively benign and others that can cause severe and/or fatal disease. Diagnosis of any disease should be based on pedigree history, clinical signs, history (incidence) of the disease and the specific genetic test for the disease. Penetrance of a disease will always vary not only from breed to breed but within a breed, and will vary with different diseases. Factors that influence penetrance are genetics, nutrition and environment. Although genetic testing should be a priority for breeders, we strongly recommend that temperament and phenotype also be considered when breeding.

Orivet Genetic Pet Care aims to frequently update breeders with the latest research from the scientific literature. If breeders have any questions regarding a particular condition, please contact us on (03) 9534 1544 or admin@orivet.com and we will be happy to work with you to answer any relevant questions.