Paw Print Genetics
A division of Genetic Veterinary Sciences, Inc.

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Laboratory Report

Laboratory #:	171830	**Call Name:**	Benelli
Order #:	76437	**Registered Name:**	Brock's Benelli of Willowbrook
Ordered By:	Christine Braughler	**Breed:**	Labrador Retriever
Ordered:	April 7, 2020	**Sex:**	Male
Received:	May 7, 2020	**DOB:**	Jan. 2019
Reported:	May 19, 2020	**Registration #:**	31558
		Microchip #:	991001003147108

Results:

Disease	Gene	Genotype	Interpretation
Centronuclear Myopathy	*PTPLA*	WT/WT	Normal (clear)
Copper Toxicosis (Labrador Retriever Type) ATP7A	*ATP7A*	WT/Y	Normal/Clear Male
Copper Toxicosis (Labrador Retriever Type) ATP7B	*ATP7B*	WT/WT	Normal (clear)
Degenerative Myelopathy	*SOD1*	WT/WT	Normal (clear)
Exercise-Induced Collapse	*DNM1*	WT/WT	Normal (clear)
Hereditary Nasal Parakeratosis	*SUV39H2*	WT/WT	Normal (clear)
Progressive Retinal Atrophy, Progressive Rod-Cone Degeneration	*PRCD*	WT/WT	Normal (clear)
Retinal Dysplasia/Oculoskeletal Dysplasia 1	*COL9A3*	WT/WT	Normal (clear)
Skeletal Dysplasia 2	*COL11A2*	WT/WT	Normal (clear)

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

Interpretation:

Molecular genetic analysis was performed for nine specific mutations reported to be associated with disease in dogs (eight deleterious mutations and one protective mutation). We identified two normal copies of the DNA sequences for the deleterious mutations tested. Thus, this dog is not at an increased risk for the diseases associated with these mutations. In addition, we identified a normal copy of the DNA sequence for *ATP7A*. Thus, this dog does not carry the protective mutation for Copper Toxicosis (Labrador Retriever Type).

Recommendations:

No deleterious mutations were identified. Thus, this dog is not at an increased risk for the diseases caused by or associated with the mutations tested. Because this dog is "clear" of these mutations, this dog will only pass these normal genes on to its offspring. Normal results do not exclude inherited mutations not tested in these genes or other genes that may cause medical problems or may be passed on to offspring.

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 did not inherit the *ATP7A* gene 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.

Christina J Ramirez, PhD, DVM, DACVP
Medical Director

Robert D. Westra, MS, DVM
Assistant 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.