

850 E. Spokane Falls Blvd., Suite 200 Spokane, Washington 99202 www.pawprintgenetics.com (509) 483-5950

Laboratory Report

Laboratory #: 30371
Order #: 12160
Ordered By: lennifer Neitzke

 Ordered:
 June 14, 2016

 Received:
 June 27, 2016

Reported: July 7, 2016

Call Name: Sierra
Registered Name: JBC Sierra

Breed: Border Collie

Sex: Female May 2016

Registration #: -

Results:

Disease	Gene	Genotype	Interpretation
Collie Eye Anomaly	NHEJ1	WT/WT	Normal (clear)
Degenerative Myelopathy	SOD1	WT/WT	Normal (clear)
Intestinal Cobalamin Malabsorption (Border Collie Type)	CUBN	WT/WT	Normal (clear)
Multidrug Resistance 1	ABCB1	WT/WT	Normal (clear)
Neuronal Ceroid Lipofuscinosis 5	CLN5	WT/WT	Normal (clear)
Trapped Neutrophil Syndrome	VPS13B	WT/WT	Normal (clear)

WT, wild type (normal); M, mutant

Interpretation:

Molecular genetic analysis was performed for six specific mutations reported to be associated with disease in dogs. We identified two normal copies of the DNA sequences in the mutations tested.

Recommendations:

No 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 the normal genes on to its offspring. 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. 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.

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

*Note: Preliminary results were reported to the client via phone on July 7, 2016.

incidental damages of any kind. Any claim must be asserted within 60 days of the report of the test results.

Collie Eye Anomaly was performed under an exclusive sublicense from OptiGen®, LLC

Christina J Ramirez, PhD, DVM, DACVP

Medical 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



Coat Color and Trait Certificate

Call Name:SierraLaboratory #:30371

Registered Name: JBC Sierra **Registration #:**

Breed: Border Collie **Certificate Date:** Sept. 8, 2017

Sex: Female **DOB:** May 2016

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

Coat Color/Trait Test	Gene	Genotype	Interpretation
A Locus (Agouti)	ASIP	a ^t /a ^t	Tricolor, black and tan
M Locus (Merle)	PMEL	m/m	Non merle

Interpretation:

This dog carries two copies of $\mathbf{a^t}$ which results in tan points and can also present as a black and tan or tricolor coat color. However, this dog's coat color is also dependent on the E, K, and B genes. The tan point coat color is only expressed if the dog is also E/E or E/e at the E locus and k^y/k^y at the K locus. This dog will pass on $\mathbf{a^t}$ to 100% of its offspring.

This dog carries two copies of \mathbf{m} and, therefore, does not have a merle coat color. This dog will pass on \mathbf{m} to 100% of its offspring.

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.

Helen F Smith, PhD

Holy Shouth

Assistant Laboratory Director

Christina J Ramirez, PhD, DVM, DACVP

Medical Director

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Coat Color and Trait Certificate

Call Name: Sierra Laboratory #: 30371

Registered Name: JBC Sierra Registration #: Breed: Border Collie Certificate Date: Jan. 6, 2017

Sex: Female DOB: May 2016

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

Coat Color/Trait Test	Gene	Genotype	Interpretation
M Locus (Merle)	PMEL	m/m	Non merle

Interpretation:

This dog carries two copies of \mathbf{m} and, therefore, does not have a merle coat color. This dog will pass on \mathbf{m} to 100% of its offspring.

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

Christina J Ramirez, PhD, DVM, DACVP

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.

Plum Hollow Border Collies

Health Record

Name/Registration Number: 18C Sierra				
Date of Birth: 5 30 16 Sex: Male or Female				
Color/Description: Bloode				
Dam: Sw	4	Sire: Blazzir	B2	
		Dace		
Date	Vaccination	Amount	Reason	
Given			Reason	
11/24/17	Vacancet	arons		
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CANINE COUGH VACCINATION CERTIFICATE

Dog Name: Sierra

Owner Name: Jennifer Neitzke

Veterinarian: A Michael Manzoni DVM Veterinarian's Signature:

Date of Vaccination: 11-24-2017 Serial No. 2 2 6873 /Exp. Date 29 PL

Revaccination Date: 11-23-2018

History of Other Vaccinations: DAZPPU exp 11-23-2018

Leptor exp 11-23-2018

Other Information: Rabies exp 11-23-2020

NOTE: This information provided by Schering-Plough Animal Health, makers of

Intra-Trac II





VILLAGE VETERINARY CLINIC

A. M. Manzoni DVM

105 W. Saginaw St

HEMLOCK, MICHIGAN 48828





RABIES VACCINATION CERTIFICATE NASPHV FORM 51 (revised 2007)		RABIES TAG # 4914		
Owner's Name & Address		Print Clearly	MICROCHIP #	ar .
LAST Nietzke	FIRST Jennifer	M.I.	TELEPHONE # 860- 1	4157
NO. 2180	STREET N. IVO	CITY Hemlock	STATE M	21P 48626
DOG CAT CFERRET C	AGE \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	Under 20 lbs. 20 - 50 lbs. Over 50 lbs.	border collic	PREDOMINANAT COLORS/ MARKINGS
OTHER (specify)	MALE FEMALE NEUTERED		Sierra	
ANIMAL CONTROL LICENSE	□ 1 YR □ 3 YR □ OT	HER	VETERINARIAN'S NAME	Manzoni DUM
MONTH/DAY/YEAR	MANUFACTURER FI	NER RST 3 LETTERS	LICENSE NUMBER 690	0.2
NEXT VACCINATION DUE BY 11 - 23 - 2020 MONTH/DAY/YEAR	1 YR USDA Licensed 3 YR USDA Licensed 4 YR USDA Licensed Initial Dose	Vaccine Vaccine Booster Dose	ADDRESS A. M. M. M. 103 W. S. HEMLOCK. M.	PINARY CHMIC TECHE DYM CESCAM 48528
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