

Demographic Information

Call Name

Bailey

DOB

December 23, 2021

Registered Name

Miniature Australian

Tattoo

Breed Miniature Shepherd

Microchip

Female

Laboratory #

Registration Number

375814

Owner

Sex

Jennifer Hoyt

Report Date

August 31, 2023

These tests were developed and performed by Paw Print Genetics®, Spokane WA.

Explanation of Results

Normal

A 'Normal' result means that your dog does not have the mutation that causes the associated genetic disease.

Carrier

A 'Carrier' result indicates that your dog has inherited one copy of the mutation that has been reported to cause this genetic disease. Your dog may not be clinically affected by this mutation because two copies of the mutation are usually required to cause disease.

Carrier / At-Risk

A 'Carrier / At-Risk' result indicates that your dog inherited one copy of the mutation that has been reported to cause this genetic disease. Based on the mode of genetic inheritance for this particular disease, inheriting one mutant copy of the gene may result in the disease. Dogs with one copy of the mutation may have a milder phenotype as compared to dogs with two copies of this mutation.

At-Risk / Affected

An 'At-Risk / Affected' result indicates that your dog inherited one or two copies of the mutation that has been reported to cause this genetic disease. Based on the mode of genetic inheritance for this particular disease, inheriting one or two mutant copies of the gene may result in the disease.

No Result

'No Result' indicates that we were unable to obtain a genotype for your dog for this specific disease or trait and does not mean that your dog is a carrier or at-risk for this disease. There are a variety of reasons why a specific test may not provide a reportable result. Unique variations in the genetic code of some individuals may exist and cause certain regions of the genome to not perform properly with a specific test. In addition, suboptimal sampling of the dog's cheek cells could also result in poor sample performance due to inadequate cell counts, bacterial and fungal growth, or the presence of other test inhibitors. An acceptable level of tests with no results has been determined by Paw Print Genetics. Dogs with at least 90% of the test results are determined to be acceptable and reportable. If your dog has an

Please review our <u>testing terms and disclaimers</u> regarding your results.

WT: wild type (normal)

WT: wild type (normal)

M: mutant

Y: Y chromosome (male)

M: mutant

Y: Y chromosome (male)

Breed Profile

Disease Name	Geno. WT/WT	Interpretation [Normal (Clear)]
Coagulation Factor VII Deficiency Collie Eye Anomaly	WT/WT	Normal (Clear)
Cone Degeneration	WT/WT	Normal (Clear)
<u>Craniomandibular Osteopathy</u>	WT/WT	Normal (Clear)
<u>Degenerative Myelopathy</u>	WT/WT	Normal (Clear)
Degenerative Myelopathy (Bernese Mountain Dog Variant) Degenerative Myelopathy (Common Variant)	0	
Exercise-Induced Collapse	WT/WT	Normal (Clear)
Hereditary Ataxia (Australian Shepherd Type)	WT/WT	Normal (Clear)
Hereditary Cataracts (Australian Shepherd Type)	WT/WT	Normal (Clear)
<u>Hyperuricosuria</u>	WT/WT	Normal (Clear)
Intervertebral Disc Disease Risk Factor and Chondrodystrophy (CDDY with IVDD)	WT/WT	Normal (Clear)
<u>Intestinal Cobalamin Malabsorption (Border Collie Type)</u>	WT/WT	Normal (Clear)
<u>Junctional Epidermolysis Bullosa (Australian Shepherd Type)</u>	WT/WT	Normal (Clear)
Multidrug Resistance 1	WT/WT	Normal (Clear)
Multifocal Retinopathy 1	WT/WT	Normal (Clear)
Neuronal Ceroid Lipofuscinosis 6	WT/WT	Normal (Clear)
Neuronal Ceroid Lipofuscinosis 8 (Australian Shepherd Type)	WT/WT	Normal (Clear)
<u>Progressive Retinal Atrophy, Progressive Rod-Cone</u> <u>Degeneration (prcd)</u>	WT/WT	Normal (Clear)
Von Willebrand Disease I	WT/WT	Normal (Clear)

Coat Colors & Traits

Trait Name	Geno.	Interpretation
A Locus (Agouti)	a ^t /a ^t	Tricolor, black and tan
A ^s Locus (Saddle Tan)	N/A ^s	Saddle tan/creeping tan (non saddle tan carrier)
B Locus (Brown)	b/b	Brown coat, nose and foot pads (carries two copies of brown)
B Locus (Brown) - b ^a B Locus (Brown) - b ^c B Locus (Brown) - b ^d B Locus (Brown) - b ^h B Locus (Brown) - b ^e B Locus (Brown) - b ^s	0 2 2 0 0	
<u>Brachycephaly</u>	BR/BR	Likely medium to long muzzle
<u>Chondrodysplasia (CDPA)</u>	cd/cd	Likely typical leg length
Co Locus (Cocoa, French Bulldog Type)	CO/CO	Black coat, nose and foot pads (does not carry cocoa)
<u>Cu Locus (Curly Hair)</u>	Cu/Cu	Straight coat
<u>D Locus (Dilute)</u>	D/D	Non-dilute (does not carry dilute)
D Locus (Dilute) - d ¹ D Locus (Dilute) - d ² D Locus (Dilute) - d ³	0 0 0	
<u>E Locus</u>	E/E	Black
E Locus - E ^m (Melanistic Mask) E Locus - E ^g (Grizzle, Afghan Hound Type) E Locus - E ^h (Sable, Cocker Spaniel Type) E Locus - e ^A (Ancient Red, Spitz and Scent Hound Type) E Locus - e ¹ (Yellow/Red) E Locus - e ² (Cream, Australian Cattle Dog Type) E Locus - e ³ (White, Alaskan and Siberian Husky Type)	0 0 0 0 0	
H Locus (Harlequin, Great Dane Type)	h/h	No harlequin
<u>Hairlessness</u>	Rh/Rh	Coated
Hairlessness (American Hairless Terrier Type) - rh ¹ Hairlessness (Scottish Deerhound Type) - rh ²	0	

<u>Hr Locus (FOXI3 Hairless Gene Test, Mexican Hairless, Peruvian Hairless and Chinese Crested Type)</u>	hr/hr	Coated
<u> Locus (Intensity)</u>	1/1	Normal intensity
IC Locus (Improper Coat/Furnishings)	IC/IC	No furnishings, improper coat
K Locus (Dominant Black)	k ^y /k ^y	Agouti expression allowed
<u>L Locus (Long Hair/Fluffy)</u>	Lh ¹ /Lh ¹	Longhaired (carries two copies of long hair)
L Locus (Long Hair/Fluffy) - Lh ¹ L Locus (Long Hair/Fluffy) - Lh ² L Locus (Long Hair/Fluffy) - Lh ³ L Locus (Long Hair/Fluffy) - Lh ⁴	2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	
M Locus (Merle)	m/M267	Single copy merle carrier
Polydactyly (Common Variant)	pd/pd	Normal (typical) toes (likely no hind dewclaws)
Polydactyly (Great Pyrenees Type)	WT/WT	Normal (Clear)
R Locus (Roan/Ticked)	r/r	No roan or ticking
R Locus (Roan/Ticked) - R ^T i R Locus (Roan/Ticked) - R	0	
S Locus (White Spotting, Parti, or Piebald)	S/S	No white spotting, flash, parti, or piebald
SD Locus (Shedding)	SD/SD	High shedding
Sex Determination	X/X	Female
Social Behavior	WT/WT; WT/WT	May demonstrate less social behavior
Social Behavior, Variant 1 Social Behavior, Variant 2	0	
T Locus (Natural Bobtail)	t/t	Normal tail
	WT: wild type (normal)	M: mutant Y: Y chromosome (male)

Determinants of coat colors and traits are complex. Many of these variants are known and many of the genes screened in the Canine HealthCheck interact. In addition, not all the genetic factors that contribute to a dog's coat color and traits are known. Because of the complexities in gene-gene interactions, the coat colors and traits reported in your Canine HealthCheck results may vary from your dog's actual appearance. Individual differences in genes throughout the canine genome, not tested in this genetic screen, may also affect the final coat color or traits seen in your dog.

Diseases

Disease Name Acral Mutilation Syndrome MT/WT Normal (Clear) Acute Respiratory Distress Syndrome WT/WT Normal (Clear) Adult Paroxysmal Dyskinesia WT/WT Normal (Clear) MT/WT Normal (Clear) MT/WT Normal (Clear) Alaskan Husky Encephalopathy. WT/WT Normal (Clear) MT/WT Normal (Clear) MT/WT Normal (Clear) MT/WT Normal (Clear) Amelogenesis Imperfecta (Italian Greyhound Type). WT/WT Normal (Clear) MT/WT Normal (Clear) MT/WT Normal (Clear)
Adult Paroxysmal Dyskinesia MT/WT Normal (Clear) Afibrinogenemia (Dachshund Type) MT/WT Normal (Clear) Alaskan Husky Encephalopathy. MT/WT Normal (Clear) Alaskan Malamute Polyneuropathy. MT/WT Normal (Clear) Amelogenesis Imperfecta (Italian Greyhound Type). MT/WT Normal (Clear) MT/WT Normal (Clear)
Adult Paroxysmai Dyskinesia Afibrinogenemia (Dachshund Type) Alaskan Husky Encephalopathy. Alaskan Malamute Polyneuropathy. Amelogenesis Imperfecta (Italian Greyhound Type). Amelogenesis Imperfecta (Parson Russell Terrier) WT/WT Normal (Clear) Normal (Clear)
Alaskan Husky Encephalopathy. Alaskan Malamute Polyneuropathy. MT/WT WT/WT Normal (Clear) Amelogenesis Imperfecta (Italian Greyhound Type). MT/WT Normal (Clear) MT/WT Normal (Clear)
Alaskan Malamute Polyneuropathy. Amelogenesis Imperfecta (Italian Greyhound Type). Amelogenesis Imperfecta (Parson Russell Terrier. WT/WT. Normal (Clear) Normal (Clear)
Amelogenesis Imperfecta (Italian Greyhound Type) Amelogenesis Imperfecta (Parson Russell Terrier WT/WT Normal (Clear)
Amelogenesis Imperfecta (Parson Russell Terrier WT/WT Normal (Clear)
Afficial interfects (I disent tasset)
Ataxia (Norwegian Buhund Type) WT/WT Normal (Clear)
Benign Familial Juvenile Epilepsy WT/WT Normal (Clear)
Bernard-Soulier Syndrome WT/WT Normal (Clear)
<u>Canine Multiple System Degeneration (Chinese</u> <u>Crested Type)</u> Normal (Clear)
<u>Canine Multiple System Degeneration (Kerry Blue</u> <u>Terrier Type)</u> Normal (Clear)
Canine Scott Syndrome WT/WT Normal (Clear)
Cardiomyopathy and Juvenile Mortality WT/WT Normal (Clear)
Catalase Deficiency WT/WT Normal (Clear)
Centronuclear Myopathy WT/WT Normal (Clear)
<u>Cerebellar Ataxia (Finnish Hound Type)</u> WT/WT Normal (Clear)
<u>Cerebellar Ataxia 1 (Belgian Shepherd Type)</u> WT/WT Normal (Clear)
<u>Cerebellar Ataxia 2 (Belgian Shepherd Type)</u> WT/WT Normal (Clear)
<u>Cerebellar Cortical Degeneration</u> WT/WT Normal (Clear)
Cerebellar Degeneration WT/WT Normal (Clear)
<u>Charcot-Marie-Tooth Disease</u> WT/WT Normal (Clear)
<u>Chondrodysplasia (Karelian Bear Dog and Norwegian Elkhound Type)</u> Normal (Clear)
<u>Cleft Palate and Syndactyly (Nova Scotia Duck Tolling</u> WT/WT Normal (Clear) <u>Retriever Type)</u>
Coagulation Factor VII Deficiency WT/WT Normal (Clear)
Collie Eye Anomaly WT/WT Normal (Clear)

Complement 3 Deficiency	WT/WT	Normal (Clear)
Cone Degeneration	WT/WT	Normal (Clear)
Cone Degeneration (German Shepherd Dog Type)	WT/WT	Normal (Clear)
<u>Cone Degeneration (German Shorthaired Pointer Type)</u>	WT/WT	Normal (Clear)
Cone Degeneration (Labrador Retriever Type)	WT/WT	Normal (Clear)
Congenital Hypothyroidism with Goiter (Terrier Type)	WT/WT	Normal (Clear)
<u>Congenital Idiopathic Megaesophagus Risk Factor</u> (<u>German Shepherd Type</u>)	WT/WT	Normal (Clear)
Congenital Macrothrombocytopenia (Cairn and Norfolk Terrier Type)	WT/WT	Normal (Clear)
Congenital Methemoglobinemia	WT/WT	Normal (Clear)
<u>Congenital Myasthenic Syndrome (Golden Retriever Type)</u>	WT/WT	Normal (Clear)
<u>Congenital Myasthenic Syndrome (Jack Russell Terrier Type)</u>	WT/WT	Normal (Clear)
<u>Congenital Myasthenic Syndrome (Labrador Retriever Type)</u>	WT/WT	Normal (Clear)
<u>Congenital Myasthenic Syndrome (Old Danish Pointer Type)</u>	WT/WT	Normal (Clear)
Congenital Stationary Night Blindness	WT/WT	Normal (Clear)
Copper Storage Disease	WT/WT	Normal (Clear)
Craniomandibular Osteopathy	WT/WT	Normal (Clear)
Cyclic Neutropenia	WT/WT	Normal (Clear)
Cystinuria (Australian Cattle Dog Type)	WT/WT	Normal (Clear)
<u>Cystinuria (Labrador Retriever Type)</u>	WT/WT	Normal (Clear)
Cystinuria (Miniature Pinscher Type)	WT/WT	Normal (Clear)
<u>Cystinuria (Newfoundland Type)</u>	WT/WT	Normal (Clear)
<u>Cystinuria Type 3 (Bulldog Type Risk Factor, Variant 3)</u>	WT/WT	Normal (Clear)
<u>Cystinuria Type 3 (Bulldog Type Risk Factor, Variants 1 and 2)</u>	WT/WT	Normal (Clear)
Cystinuria Type 3 (Bulldog Type Risk Factor, Variant 1) Cystinuria Type 3 (Bulldog Type Risk Factor, Variant 2)	0	
Dandy-Walker-Like Malformation	WT/WT	Normal (Clear)

<u>Darier Disease and Associated Infundibular Cyst</u> <u>Formation</u>	WT/WT	Normal (Clear)
<u>Deafness and Vestibular Dysfunction (Doberman Pinscher Type), Variant 2</u>	WT/WT	Normal (Clear)
<u>Degenerative Myelopathy</u>	WT/WT	Normal (Clear)
Degenerative Myelopathy (Bernese Mountain Dog Variant) Degenerative Myelopathy (Common Variant)	0	
<u>Degenerative Myelopathy Early-Onset Risk Modifier</u> (Pembroke Welsh Corgi Type)	WT/M	One Copy Carrier - Not associated with disease
Dental Hypomineralization	WT/WT	Normal (Clear)
<u>Diffuse Cystic Renal Dysplasia and Hepatic Fibrosis</u>	WT/WT	Normal (Clear)
<u>Dilated Cardiomyopathy (Doberman Pinscher Type</u> <u>Risk Factor, Variant 1)</u>	WT/WT	Normal (Clear)
<u>Dilated Cardiomyopathy (Doberman Pinscher Type</u> <u>Risk Factor, Variant 2)</u>	WT/WT	Normal (Clear)
<u>Dilated Cardiomyopathy (Schnauzer Type)</u>	WT/WT	Normal (Clear)
Dry Eye Curly Coat Syndrome	WT/WT	Normal (Clear)
<u>Dystrophic Epidermolysis Bullosa (Basset Hound Type)</u>	WT/WT	Normal (Clear)
<u>Dystrophic Epidermolysis Bullosa (Golden Retriever Type)</u>	WT/WT	Normal (Clear)
<u>Early Onset Adult Deafness (Rhodesian Ridgeback Type)</u>	WT/WT	Normal (Clear)
Early Retinal Degeneration	WT/WT	Normal (Clear)
<u>Early-Onset Epilepsy (Parson Russell Terrier Type)</u>	WT/WT	Normal (Clear)
Ectodermal Dysplasia (Chesapeake Bay Retriever Type)	WT/WT	Normal (Clear)
Ectodermal Dysplasia, X-Linked (Dachshund Type)	WT/WT	X-Linked Female Normal
Ectodermal Dysplasia, X-Linked (Shepherd Type)	WT/WT	X-Linked Female Normal
Ehlers-Danlos Syndrome	WT/WT	Normal (Clear)
Ehlers-Danlos Syndrome (Variant 1) Ehlers-Danlos Syndrome (Variant 2)	0	
Ehlers-Danlos Syndrome (Doberman Pinscher Type)	WT/WT	Normal (Clear)
<u>Ehlers-Danlos Syndrome (Labrador Retriever Type)</u> , <u>Variant 1</u>	WT/WT	Normal (Clear)

Ehlers-Danlos Syndrome (Labrador Retriever Type), Variant 2	WT/WT	Normal (Clear)
Elliptocytosis	WT/WT	Normal (Clear)
<u>Epidermolytic Hyperkeratosis</u>	WT/WT	Normal (Clear)
Episodic Falling Syndrome	WT/WT	Normal (Clear)
Exercise-Induced Collapse	WT/WT	Normal (Clear)
Exfoliative Cutaneous Lupus Erythematosus (ECLE)	WT/WT	Normal (Clear)
Factor XI Deficiency	WT/WT	Normal (Clear)
Familial Nephropathy (Cocker Spaniel Type)	WT/WT	Normal (Clear)
Familial Nephropathy (English Springer Spaniel Type)	WT/WT	Normal (Clear)
<u>Fucosidosis</u>	WT/WT	Normal (Clear)
Gallbladder Mucoceles	WT/WT	Normal (Clear)
<u>Glanzmann's Thrombasthenia (Great Pyrenees Type)</u>	WT/WT	Normal (Clear)
Glanzmann's Thrombasthenia (Otterhound Type)	WT/WT	Normal (Clear)
Glaucoma (Border Collie Type)	WT/WT	Normal (Clear)
Globoid Cell Leukodystrophy (Irish Setter Type)	WT/WT	Normal (Clear)
Globoid Cell Leukodystrophy (Terrier Type)	WT/WT	Normal (Clear)
Glycogen Storage Disease la	WT/WT	Normal (Clear)
Glycogen Storage Disease IIIa	WT/WT	Normal (Clear)
Glycogen Storage Disease VII (Wachtelhund Type)	WT/WT	Normal (Clear)
Glycogen Storage Disease VII, PFK Deficiency	WT/WT	Normal (Clear)
<u>GM1 Gangliosidosis (Alaskan Husky Type)</u>	WT/WT	Normal (Clear)
GM1 Gangliosidosis (Portuguese Water Dog Type)	WT/WT	Normal (Clear)
GM1 Gangliosidosis (Shiba Inu Type)	WT/WT	Normal (Clear)
GM2 Gangliosidosis (Japanese Chin Type)	WT/WT	Normal (Clear)
GM2 Gangliosidosis (Poodle Type)	WT/WT	Normal (Clear)
GM2 Gangliosidosis (Shiba Inu Type)	WT/WT	Normal (Clear)
<u>Greyhound Polyneuropathy</u>	WT/WT	Normal (Clear)
<u>Hemophilia A (Boxer Type)</u>	WT/WT	X-Linked Female Normal
Hemophilia A (German Shepherd Dog, Type 1)	WT/WT	X-Linked Female Normal
Hemophilia A (German Shepherd Dog, Type 2)	WT/WT	X-Linked Female Normal

<u> Hemophilia A (Rhodesian Ridgeback Type)</u>	WT/WT	X-Linked Female Normal
<u>Hemophilia B (Cairn Terrier Type)</u>	WT/WT	X-Linked Female Normal
Hemophilia B (Lhasa Apso Type)	WT/WT	X-Linked Female Normal
Hemophilia B (Rhodesian Ridgeback Type)	WT/WT	X-Linked Female Normal
<u>Hereditary Ataxia (Australian Shepherd Type)</u>	WT/WT	Normal (Clear)
<u>Hereditary Cataracts (Australian Shepherd Type)</u>	WT/WT	Normal (Clear)
Hereditary Cataracts	WT/WT	Normal (Clear)
<u>Hereditary Cataracts (Wirehaired Pointing Griffon Type)</u>	WT/WT	Normal (Clear)
<u>Hereditary Footpad Hyperkeratosis (Irish Terrier and Kromfohrländer Type)</u>	WT/WT	Normal (Clear)
<u>Hereditary Footpad Hyperkeratosis (Rottweiler Type)</u>	WT/WT	Normal (Clear)
Hereditary Nasal Parakeratosis (Greyhound Type)	WT/WT	Normal (Clear)
<u>Hereditary Nasal Parakeratosis (Labrador Retriever Type)</u>	WT/WT	Normal (Clear)
Hereditary Nephritis (Samoyed Type)	WT/WT	X-Linked Female Normal
<u>Hyperuricosuria</u>	WT/WT	Normal (Clear)
<u>Hypomyelination (Weimaraner Type)</u>	WT/WT	Normal (Clear)
<u>Ichthyosis (American Bulldog Type)</u>	WT/WT	Normal (Clear)
Ichthyosis (Golden Retriever Type 1)	WT/WT	Normal (Clear)
Ichthyosis (Golden Retriever Type 2)	WT/WT	Normal (Clear)
<u>Ichthyosis (Great Dane Type)</u>	WT/WT	Normal (Clear)
Ichthyosis (Jack Russell Terrier Type)	WT/WT	Normal (Clear)
Inflammatory Myopathy (Shepherd Type)	WT/WT	Normal (Clear)
Inherited Myopathy of Great Danes	WT/WT	Normal (Clear)
Intervertebral Disc Disease Risk Factor and Chondrodystrophy (CDDY with IVDD)	WT/WT	Normal (Clear)
Intestinal Cobalamin Malabsorption (Beagle Type)	WT/WT	Normal (Clear)
<u>Intestinal Cobalamin Malabsorption (Border Collie Type)</u>	WT/WT	Normal (Clear)
<u>Intestinal Cobalamin Malabsorption (Giant Schnauzer Type)</u>	WT/WT	Normal (Clear)
Intestinal Lipid Malabsorption	WT/WT	Normal (Clear)

Juvenile Laryngeal Paralysis and Polyneuropathy, (Black Russian Terrier Lype.) WT/WT Normal (Clear) Juvenile Mycolonic Epilepsy (Rhodesian Ridgeback Type) WT/WT Normal (Clear) L-2-Hydroxyglutaric Aciduria (Staffordshire Bull Terrier Type) WT/WT Normal (Clear) L-2-Hydroxyglutaric Aciduria (Yorkshire Terrier Type) WT/WT Normal (Clear) Lagotto Storage Disorder WT/WT Normal (Clear) Laryngeal Paralysis and Polyneuropathy (Leonberger Type 3) WT/WT Normal (Clear) Late Onset Ataxia WT/WT Normal (Clear) Lethal Acrodermatitis WT/WT Normal (Clear) Leukocyte Adhesion Deficiency. Type II WT/WT Normal (Clear) Ligneous Membranitis WT/WT Normal (Clear) Limb-Girdle Muscular Dystrophy (Dachshund Type) WT/WT Normal (Clear) Lundehund Syndrome WT/WT Normal (Clear) Macular Corneal Dystrophy (Labrador Retriever Type) WT/WT Normal (Clear) Mammary Tumors (English Springer Spaniel Type WT/WT Normal (Clear) Micropolysaccharidosis L (Boston Terrier Type) WT/WT Normal (Clear) Mucopolysac	<u>Junctional Epidermolysis Bullosa (Australian Shepherd Type)</u>	WT/WT	Normal (Clear)
L2-Hydroxyglutaric Aciduria (Staffordshire Bull Tyre). -2-Hydroxyglutaric Aciduria (Yorkshire Terrier Type) WT/WT Normal (Clear) -2-Hydroxyglutaric Aciduria (Yorkshire Terrier Type) WT/WT Normal (Clear)	<u>Juvenile Laryngeal Paralysis and Polyneuropathy</u> (<u>Black Russian Terrier Type)</u>	WT/WT	Normal (Clear)
L2-Hydroxyglutaric Aciduria (Yorkshire Terrier Type) L2-Hydroxyglutaric Aciduria (Yorkshire Terrier Type) L2-Hydroxyglutaric Aciduria (Yorkshire Terrier Type) Laryngeal Paralysis and Polyneuropathy.(Leonberger Laryngeal Paralysis and Polyneuropathy.(Leonberger Type 3) Late Onset Ataxia WT/WT Normal (Clear) Lethal Acrodermatitis WT/WT Normal (Clear) Leukocyte Adhesion Deficiency. Type 1 WT/WT Normal (Clear) Ligneous Membranitis WT/WT Normal (Clear) Ligneous Membranitis WT/WT Normal (Clear) Liundehund Syndrome WT/WT Normal (Clear) WMACULAR Corneal Dystrophy.(Labrador Retriever Type) WT/WT Normal (Clear) Macular Corneal Dystrophy. (Labrador Retriever Type) WM/WT Normal (Clear) May-Hegglin Anomaly WT/WT Normal (Clear) Microphthalmia WT/WT Normal (Clear) Mucopolysaccharidosis I (Boston Terrier Type) WT/WT Normal (Clear) Mucopolysaccharidosis IIIA (Dachshund Type) WT/WT Normal (Clear) Mucopolysaccharidosis IIIIA (New Zealand Huntaway Type) Mucopolysaccharidosis IIIIA (Schipperke Type) WT/WT Normal (Clear) Mucopolysaccharidosis VII (Brazilian Terrier Type) WT/WT Normal (Clear) Mucopolysaccharidosis VII (Brazilian Terrier Type) WT/WT Normal (Clear) Mucopolysaccharidosis VII (Brazilian Terrier Type) WT/WT Normal (Clear) Normal (Clear)		WT/WT	Normal (Clear)
Lagotto Storage Disorder Laryngeal Paralysis and Polyneuropathy. (Leonberger Type 3). Late Onset Ataxia Lethal Acrodermatitis Leukocyte Adhesion Deficiency. Type II Ligneous Membranitis Ligneous Membranitis Limb-Girdle Muscular Dystrophy. (Dachshund Type) Lundehund Syndrome Macular Corneal Dystrophy. (Labrador Retriever Type) Mammary Tumors (English Springer Spaniel Type Risk Factor) May-Hegglin Anomaly. Microphthalmia Micropolysaccharidosis I. (Boston Terrier Type) Mucopolysaccharidosis IIIA (Dachshund Type) Mucopolysaccharidosis IIIB (Schipperke Type) Mucopolysaccharidosis IIIB (Schipperke Type) Mucopolysaccharidosis IIIB (Schipperke Type) Mucopolysaccharidosis IIIB (Schipperke Type) Mucopolysaccharidosis IIIIB (Schipperke Type) Mucopolysaccharidosis IIIIB (Schipperke Type) Mucopolysaccharidosis IIIIB (Schipperke Type) Mucopolysaccharidosis IIIII (New Zealand Huntaway. Type) Mucopolysaccharidosis IIIII (Schipperke Type) Mucopolysaccharidosis IIIII (Schipperke Type) Mucopolysaccharidosis IIIIII (Schipperke Type) Mucopolysaccharidosis VI. (Miniature Schnauzer Type)		WT/WT	Normal (Clear)
Laryngeal Paralysis and Polyneuropathy (Leonberger Type 3) Late Onset Ataxia Lethal Acrodermatitis WT/WT Normal (Clear) Leukocyte Adhesion Deficiency, Type II Leukocyte Adhesion Deficiency, Type III WT/WT Normal (Clear) Leukocyte Adhesion Deficiency, Type III WT/WT Normal (Clear) Ligneous Membranitis WT/WT Normal (Clear) Limb-Girdle Muscular Dystrophy (Dachshund Type) WT/WT Normal (Clear) Lundehund Syndrome WT/WT Normal (Clear) Macular Corneal Dystrophy (Labrador Retriever Type) Mammary Tumors (English Springer Spaniel Type Risk Factor) May-Hegglin Anomaly Microphthalmia WT/WT Normal (Clear) Mucopolysaccharidosis I (Boston Terrier Type) WT/WT Normal (Clear) Mucopolysaccharidosis IIIA (Dachshund Type) WT/WT Normal (Clear) Mucopolysaccharidosis IIIIA (New Zealand Huntaway, Type) Mucopolysaccharidosis IIIIB (Schipperke Type) WT/WT Normal (Clear) Mucopolysaccharidosis IIIIB (Schipperke Type) WT/WT Normal (Clear) Mucopolysaccharidosis VI (Miniature Schnauzer Type) WT/WT Normal (Clear) Mucopolysaccharidosis VI (Miniature Schnauzer Type) WT/WT Normal (Clear) Mucopolysaccharidosis VI (Miniature Schnauzer Type) Mucopolysaccharidosis VI (Miniature Schnauzer Type) WT/WT Normal (Clear)	<u>L-2-Hydroxyglutaric Aciduria (Yorkshire Terrier Type)</u>	WT/WT	Normal (Clear)
Late Onset Ataxia Lethal Acrodermatitis Leukocyte Adhesion Deficiency, Type II Leukocyte Adhesion Deficiency, Type III Ligneous Membranitis WT/WT Normal (Clear) Ligneous Membranitis WT/WT Normal (Clear) Ligneous Membranitis WT/WT Normal (Clear) Limb-Girdle Muscular Dystrophy (Dachshund Type) WT/WT Normal (Clear) Lundehund Syndrome WT/WT Normal (Clear) Macular Corneal Dystrophy (Labrador Retriever Type) WT/WT Normal (Clear) Mammary Tumors (English Springer Spaniel Type Risk Factor) May-Hegglin Anomaly WT/WT Normal (Clear) Microphthalmia WT/WT Normal (Clear) Mucopolysaccharidosis I (Boston Terrier Type) WT/WT Normal (Clear) Mucopolysaccharidosis I (Plott Hound Type) WT/WT Normal (Clear) Mucopolysaccharidosis IIIIA (New Zealand Huntaway, Type) Mucopolysaccharidosis IIIIB (Schipperke Type) WT/WT Normal (Clear) Mucopolysaccharidosis VI (Miniature Schnauzer Type) WT/WT Normal (Clear) Mucopolysaccharidosis VI (Miniature Schnauzer Type) WT/WT Normal (Clear) Mucopolysaccharidosis VI (Miniature Schnauzer Type) Mucopolysaccharidosis VI (Miniature Schnauzer Type) WT/WT Normal (Clear)	<u>Lagotto Storage Disorder</u>	WT/WT	Normal (Clear)
Lethal Acrodermatitis Leukocyte Adhesion Deficiency, Type I Leukocyte Adhesion Deficiency, Type III Ligneous Membranitis Ligneous Membranitis Limb-Girdle Muscular Dystrophy (Dachshund Type) Lundehund Syndrome Macular Corneal Dystrophy (Labrador Retriever Type) Mammary Tumors (English Springer Spaniel Type Risk Factor) May-Hegglin Anomaly Microphthalmia WT/WT Normal (Clear) WT/WT Normal (Clear) WI/WT Normal (Clear) WI/WT Normal (Clear) WI/WT Normal (Clear) WI/WT Normal (Clear) Mucopolysaccharidosis I (Boston Terrier Type) WI/WT Normal (Clear) Mucopolysaccharidosis IIIA (New Zealand Huntaway, Type) Mucopolysaccharidosis IIIB (Schipperke Type) WI/WT Normal (Clear) Mucopolysaccharidosis VI (Miniature Schnauzer Type) WI/WT Normal (Clear) Mucopolysaccharidosis VI (Miniature Schnauzer Type) MI/WT Normal (Clear) Mucopolysaccharidosis VI (Miniature Schnauzer Type)		WT/WT	Normal (Clear)
Leukocyte Adhesion Deficiency. Type III Leukocyte Adhesion Deficiency. Type III WT/WT Normal (Clear) Ligneous Membranitis WT/WT Normal (Clear) Macular Corneal Dystrophy. (Labrador Retriever Type) Mammary Tumors (English Springer Spaniel Type Risk Factor) May-Hegglin Anomaly. WT/WT Normal (Clear) Mucopolysaccharidosis I (Boston Terrier Type). WT/WT Normal (Clear) Mucopolysaccharidosis I (Plott Hound Type). WT/WT Normal (Clear) Mucopolysaccharidosis IIIIA (New Zealand Huntaway. Type). Mucopolysaccharidosis IIIIII (Schipperke Type). WT/WT Normal (Clear) Mucopolysaccharidosis VI (Miniature Schnauzer Type). WT/WT Normal (Clear) Mucopolysaccharidosis VI (Miniature Schnauzer Type). WT/WT Normal (Clear) Normal (Clear)	Late Onset Ataxia	WT/WT	Normal (Clear)
Leukocyte Adhesion Deficiency, Type III Ligneous Membranitis WT/WT Normal (Clear) Limb-Girdle Muscular Dystrophy (Dachshund Type) WT/WT Normal (Clear) Lundehund Syndrome WT/WT Macular Corneal Dystrophy (Labrador Retriever Type) Mammary Tumors (English Springer Spaniel Type Risk Factor) May-Hegglin Anomaly WT/WT Normal (Clear) Mucopolysaccharidosis I (Boston Terrier Type) WT/WT Normal (Clear) Mucopolysaccharidosis I (Plott Hound Type) MT/WT Normal (Clear) Mucopolysaccharidosis IIIA (New Zealand Huntaway. Type) Mucopolysaccharidosis IIIB (Schipperke Type) WT/WT Normal (Clear) Mucopolysaccharidosis IIIIB (Schipperke Type) WT/WT Normal (Clear) Mucopolysaccharidosis VI (Miniature Schnauzer Type) Mucopolysaccharidosis VI (Miniature Schnauzer Type) Mucopolysaccharidosis VI (Brazilian Terrier Type) WT/WT Normal (Clear)	Lethal Acrodermatitis	WT/WT	Normal (Clear)
Ligneous Membranitis Limb-Girdle Muscular Dystrophy (Dachshund Type). Lundehund Syndrome WT/WT Normal (Clear) Macular Corneal Dystrophy (Labrador Retriever Type). Mammary Tumors (English Springer Spaniel Type Risk Factor). May-Hegglin Anomaly. WT/WT Normal (Clear) Microphthalmia WT/WT Normal (Clear) Mucopolysaccharidosis I (Boston Terrier Type). WT/WT Normal (Clear) Mucopolysaccharidosis I (Plott Hound Type). WT/WT Normal (Clear) Mucopolysaccharidosis IIIA (Dachshund Type). WT/WT Normal (Clear) Mucopolysaccharidosis IIIIA (New Zealand Huntaway. Type). Mucopolysaccharidosis IIIIB (Schipperke Type). WT/WT Normal (Clear) Mucopolysaccharidosis VI (Miniature Schnauzer Type). WT/WT Normal (Clear) Mucopolysaccharidosis VI (Miniature Schnauzer Type). Mucopolysaccharidosis VI (Miniature Type). WT/WT Normal (Clear) Normal (Clear)	Leukocyte Adhesion Deficiency, Type I	WT/WT	Normal (Clear)
Limb-Girdle Muscular Dystrophy (Dachshund Type) Lundehund Syndrome WT/WT Normal (Clear) Macular Corneal Dystrophy (Labrador Retriever Type) WT/WT Normal (Clear) Mammary Tumors (English Springer Spaniel Type Risk Factor) May-Hegglin Anomaly WT/WT Normal (Clear) Microphthalmia WT/WT Normal (Clear) Mucopolysaccharidosis I (Boston Terrier Type) WT/WT Normal (Clear) Mucopolysaccharidosis IIIA (Dachshund Type) WT/WT Normal (Clear) Mucopolysaccharidosis IIIIA (New Zealand Huntaway, Type) Mucopolysaccharidosis IIIIB (Schipperke Type) WT/WT Normal (Clear) Mucopolysaccharidosis VI (Miniature Schnauzer Type) Mucopolysaccharidosis VI (Miniature Schnauzer Type) Mucopolysaccharidosis VI (Brazilian Terrier Type) WT/WT Normal (Clear)	Leukocyte Adhesion Deficiency, Type III	WT/WT	Normal (Clear)
Lundehund Syndrome WT/WT Normal (Clear) Macular Corneal Dystrophy (Labrador Retriever Type) WT/WT Normal (Clear) Mammary Tumors (English Springer Spaniel Type Risk Factor) WT/WT Normal (Clear) May-Hegglin Anomaly WT/WT Normal (Clear) Microphthalmia WT/WT Normal (Clear) Mucopolysaccharidosis L (Boston Terrier Type) WT/WT Normal (Clear) Mucopolysaccharidosis L (Plott Hound Type) WT/WT Normal (Clear) Mucopolysaccharidosis IIIA (Dachshund Type) WT/WT Normal (Clear) Mucopolysaccharidosis IIIA (New Zealand Huntaway, Type) WT/WT Normal (Clear) Mucopolysaccharidosis IIIB (Schipperke Type) WT/WT Normal (Clear) Mucopolysaccharidosis VI (Miniature Schnauzer Type) WT/WT Normal (Clear) Mucopolysaccharidosis VII (Brazilian Terrier Type) WT/WT Normal (Clear)	<u>Ligneous Membranitis</u>	WT/WT	Normal (Clear)
Macular Corneal Dystrophy (Labrador Retriever Type)WT/WTNormal (Clear)Mammary Tumors (English Springer Spaniel Type Risk Factor)WT/WTNormal (Clear)May-Hegglin AnomalyWT/WTNormal (Clear)MicrophthalmiaWT/WTNormal (Clear)Mucopolysaccharidosis I (Boston Terrier Type)WT/WTNormal (Clear)Mucopolysaccharidosis I (Plott Hound Type)WT/WTNormal (Clear)Mucopolysaccharidosis IIIA (Dachshund Type)WT/WTNormal (Clear)Mucopolysaccharidosis IIIA (New Zealand Huntaway, Type)WT/WTNormal (Clear)Mucopolysaccharidosis IIIB (Schipperke Type)WT/WTNormal (Clear)Mucopolysaccharidosis VI (Miniature Schnauzer Type)WT/WTNormal (Clear)Mucopolysaccharidosis VII (Brazilian Terrier Type)WT/WTNormal (Clear)	<u>Limb-Girdle Muscular Dystrophy (Dachshund Type)</u>	WT/WT	Normal (Clear)
Mammary Tumors (English Springer Spaniel Type Risk Factor).WT/WTNormal (Clear)May-Hegglin Anomaly.WT/WTNormal (Clear)MicrophthalmiaWT/WTNormal (Clear)Mucopolysaccharidosis I (Boston Terrier Type).WT/WTNormal (Clear)Mucopolysaccharidosis I (Plott Hound Type).WT/WTNormal (Clear)Mucopolysaccharidosis IIIA (Dachshund Type).WT/WTNormal (Clear)Mucopolysaccharidosis IIIA (New Zealand Huntaway. Type).WT/WTNormal (Clear)Mucopolysaccharidosis IIIB (Schipperke Type).WT/WTNormal (Clear)Mucopolysaccharidosis VI (Miniature Schnauzer Type).WT/WTNormal (Clear)Mucopolysaccharidosis VII (Brazilian Terrier Type).WT/WTNormal (Clear)	<u>Lundehund Syndrome</u>	WT/WT	Normal (Clear)
Risk Factor). May-Hegglin Anomaly. WT/WT Normal (Clear). Microphthalmia WT/WT Normal (Clear). Mucopolysaccharidosis I (Boston Terrier Type). WT/WT Normal (Clear). Mucopolysaccharidosis I (Plott Hound Type). WT/WT Normal (Clear). Mucopolysaccharidosis IIIA (Dachshund Type). WT/WT Normal (Clear). Mucopolysaccharidosis IIIA (New Zealand Huntaway. Type). WT/WT Normal (Clear). Mucopolysaccharidosis IIIB (Schipperke Type). WT/WT Normal (Clear). Mucopolysaccharidosis VI (Miniature Schnauzer Type). WT/WT Normal (Clear). Mucopolysaccharidosis VII (Brazilian Terrier Type). WT/WT Normal (Clear).	Macular Corneal Dystrophy (Labrador Retriever Type)	WT/WT	Normal (Clear)
Microphthalmia WT/WT Normal (Clear) Mucopolysaccharidosis I (Boston Terrier Type) WT/WT Normal (Clear) Mucopolysaccharidosis I (Plott Hound Type) WT/WT Normal (Clear) Mucopolysaccharidosis IIIA (Dachshund Type) WT/WT Normal (Clear) Mucopolysaccharidosis IIIA (New Zealand Huntaway Type) WT/WT Normal (Clear) Mucopolysaccharidosis IIIB (Schipperke Type) WT/WT Normal (Clear) Mucopolysaccharidosis VI (Miniature Schnauzer Type) WT/WT Normal (Clear) Mucopolysaccharidosis VII (Brazilian Terrier Type) WT/WT Normal (Clear)		WT/WT	Normal (Clear)
Mucopolysaccharidosis I (Boston Terrier Type)WT/WTNormal (Clear)Mucopolysaccharidosis I (Plott Hound Type)WT/WTNormal (Clear)Mucopolysaccharidosis IIIA (Dachshund Type)WT/WTNormal (Clear)Mucopolysaccharidosis IIIA (New Zealand Huntaway, Type)WT/WTNormal (Clear)Mucopolysaccharidosis IIIB (Schipperke Type)WT/WTNormal (Clear)Mucopolysaccharidosis VI (Miniature Schnauzer Type)WT/WTNormal (Clear)Mucopolysaccharidosis VII (Brazilian Terrier Type)WT/WTNormal (Clear)	May-Hegglin Anomaly	WT/WT	Normal (Clear)
Mucopolysaccharidosis I (Plott Hound Type) WT/WT Normal (Clear) Mucopolysaccharidosis IIIA (Dachshund Type) WT/WT Normal (Clear) Mucopolysaccharidosis IIIA (New Zealand Huntaway Type) WT/WT Normal (Clear) Mucopolysaccharidosis IIIB (Schipperke Type) WT/WT Normal (Clear) Mucopolysaccharidosis VI (Miniature Schnauzer Type) WT/WT Normal (Clear) Mucopolysaccharidosis VII (Brazilian Terrier Type) WT/WT Normal (Clear)	<u>Microphthalmia</u>	WT/WT	Normal (Clear)
Mucopolysaccharidosis IIIA (Dachshund Type) WT/WT Normal (Clear) Mucopolysaccharidosis IIIA (New Zealand Huntaway, Type) WT/WT Normal (Clear) Mucopolysaccharidosis IIIB (Schipperke Type) WT/WT Normal (Clear) Mucopolysaccharidosis VI (Miniature Schnauzer Type) WT/WT Normal (Clear) Mucopolysaccharidosis VII (Brazilian Terrier Type) WT/WT Normal (Clear)	<u>Mucopolysaccharidosis I (Boston Terrier Type)</u>	WT/WT	Normal (Clear)
Mucopolysaccharidosis IIIA (New Zealand Huntaway Type). WT/WT Normal (Clear) Mucopolysaccharidosis IIIB (Schipperke Type). WT/WT Normal (Clear) Mucopolysaccharidosis VI (Miniature Schnauzer Type). WT/WT Normal (Clear) Mucopolysaccharidosis VII (Brazilian Terrier Type). WT/WT Normal (Clear)	<u>Mucopolysaccharidosis I (Plott Hound Type)</u>	WT/WT	Normal (Clear)
Type). Mucopolysaccharidosis IIIB (Schipperke Type). WT/WT Normal (Clear) Mucopolysaccharidosis VI (Miniature Schnauzer Type). WT/WT Normal (Clear) Mucopolysaccharidosis VII (Brazilian Terrier Type). WT/WT Normal (Clear)	<u>Mucopolysaccharidosis IIIA (Dachshund Type)</u>	WT/WT	Normal (Clear)
Mucopolysaccharidosis VI (Miniature Schnauzer Type). Mucopolysaccharidosis VII (Brazilian Terrier Type). WT/WT Normal (Clear)		WT/WT	Normal (Clear)
<u>Type).</u> <u>Mucopolysaccharidosis VII (Brazilian Terrier Type).</u> WT/WT Normal (Clear)	<u>Mucopolysaccharidosis IIIB (Schipperke Type)</u>	WT/WT	Normal (Clear)
		WT/WT	Normal (Clear)
Mucopolysaccharidosis VII (Shepherd Type) WT/WT Normal (Clear)	<u>Mucopolysaccharidosis VII (Brazilian Terrier Type)</u>	WT/WT	Normal (Clear)
	<u>Mucopolysaccharidosis VII (Shepherd Type)</u>	WT/WT	Normal (Clear)

Multidrug Resistance 1	WT/WT	Normal (Clear)
Multifocal Retinopathy 1	WT/WT	Normal (Clear)
Multifocal Retinopathy 2	WT/WT	Normal (Clear)
Multifocal Retinopathy 3	WT/WT	Normal (Clear)
Muscular Dystrophy (Golden Retriever Type)	WT/WT	X-Linked Female Normal
Musladin-Lueke Syndrome	WT/WT	Normal (Clear)
Myostatin Deficiency (Whippet and Longhaired Whippet Type)	WT/WT	Normal (Clear)
Myotonia Congenita (Australian Cattle Dog Type)	WT/WT	Normal (Clear)
Myotonia Congenita (Labrador Retriever Type)	WT/WT	Normal (Clear)
Myotonia Congenita (Schnauzer Type)	WT/WT	Normal (Clear)
Myotubular Myopathy 1 (Boykin Spaniel Type)	WT/WT	X-Linked Female Normal
Myotubular Myopathy 1 (Labrador Retriever Type)	WT/WT	X-Linked Female Normal
Myotubular Myopathy 1 (Rottweiler Type)	WT/WT	X-Linked Female Normal
Narcolepsy (Dachshund Type)	WT/WT	Normal (Clear)
Narcolepsy (Doberman Pinscher Type)	WT/WT	Normal (Clear)
Narcolepsy (Labrador Retriever Type)	WT/WT	Normal (Clear)
Neonatal Ataxia	WT/WT	Normal (Clear)
Neonatal Cerebellar Cortical Degeneration	WT/WT	Normal (Clear)
Neonatal Encephalopathy with Seizures	WT/WT	Normal (Clear)
Neuroaxonal Dystrophy (Giant Schnauzer Type)	WT/WT	Normal (Clear)
Neuroaxonal Dystrophy (Papillon Type)	WT/WT	Normal (Clear)
Neuroaxonal Dystrophy (Rottweiler Type)	WT/WT	Normal (Clear)
Neuroaxonal Dystrophy (Spanish Water Dog Type)	WT/WT	Normal (Clear)
Neuronal Ceroid Lipofuscinosis (Tibetan Terrier Type)	WT/WT	Normal (Clear)
Neuronal Ceroid Lipofuscinosis 1 (Cane Corso Type)	WT/WT	Normal (Clear)
Neuronal Ceroid Lipofuscinosis 1	WT/WT	Normal (Clear)
Neuronal Ceroid Lipofuscinosis 10	WT/WT	Normal (Clear)
Neuronal Ceroid Lipofuscinosis 12	WT/WT	Normal (Clear)
Neuronal Ceroid Lipofuscinosis 2	WT/WT	Normal (Clear)
Neuronal Ceroid Lipofuscinosis 4A	WT/WT	Normal (Clear)

<u>Neuronal Ceroid Lipofuscinosis 5 (Golden Retriever Type)</u>	WT/WT	Normal (Clear)
Neuronal Ceroid Lipofuscinosis 5 (Herding Dog Type)	WT/WT	Normal (Clear)
Neuronal Ceroid Lipofuscinosis 6	WT/WT	Normal (Clear)
Neuronal Ceroid Lipofuscinosis 7	WT/WT	Normal (Clear)
Neuronal Ceroid Lipofuscinosis 8 (Australian Shepherd Type)	WT/WT	Normal (Clear)
Neuronal Ceroid Lipofuscinosis 8 (Setter Type)	WT/WT	Normal (Clear)
Nonsyndromic Hearing Loss (Rottweiler Type)	WT/WT	Normal (Clear)
Oculocutaneous Albinism (Doberman Pinscher Type)	WT/WT	Normal (Clear)
Oculocutaneous Albinism (Small Breed Type)	WT/WT	Normal (Clear)
<u>Osteochondrodysplasia</u>	WT/WT	Normal (Clear)
Osteogenesis Imperfecta (Beagle Type)	WT/WT	Normal (Clear)
Osteogenesis Imperfecta (Dachshund Type)	WT/WT	Normal (Clear)
Osteogenesis Imperfecta (Golden Retriever Type)	WT/WT	Normal (Clear)
P2RY12 Receptor Platelet Disorder	WT/WT	Normal (Clear)
Pancreatitis (Miniature Schnauzer Type Risk Factor)	WT/WT	Normal (Clear)
Pancreatitis (Miniature Schnauzer Type Risk Factor), Variant 1 Pancreatitis (Miniature Schnauzer Type Risk Factor), Variant 2 Pancreatitis (Miniature Schnauzer Type Risk Factor), Variant 3	0 0 0	
Pembroke Welsh Corgi Duchenne Muscular Dystrophy	WT/WT	X-Linked Female Normal
Persistent Müllerian Duct Syndrome	WT/WT	Normal (Clear)
Pituitary Dwarfism (Shepherd Type)	WT/WT	Normal (Clear)
Polyneuropathy (Leonberger and Saint Bernard Type)	WT/WT	Normal (Clear)
Polyneuropathy (Leonberger Type 2)	WT/WT	Normal (Clear)
Polyneuropathy with Ocular Abnormalities and Neuronal Vacuolation	WT/WT	Normal (Clear)
<u>Pompe Disease</u>	WT/WT	Normal (Clear)
<u>Prekallikrein Deficiency</u>	WT/WT	Normal (Clear)
<u>Primary Ciliary Dyskinesia (Alaskan Malamute Type)</u>	WT/WT	Normal (Clear)
<u>Primary Ciliary Dyskinesia (Old English Sheepdog Type)</u>	WT/WT	Normal (Clear)

Primary Hyperoxaluria	WT/WT	Normal (Clear)
Primary Lens Luxation	WT/WT	Normal (Clear)
<u>Primary Open Angle Glaucoma (Basset Fauve de Bretagne Type)</u>	WT/WT	Normal (Clear)
Primary Open Angle Glaucoma (Basset Hound Type)	WT/WT	Normal (Clear)
Primary Open Angle Glaucoma	WT/WT	Normal (Clear)
<u>Primary Open Angle Glaucoma (Norwegian Elkhound Type)</u>	WT/WT	Normal (Clear)
<u>Primary Open Angle Glaucoma and Primary Lens</u> <u>Luxation (Shar Pei Type)</u>	WT/WT	Normal (Clear)
Progressive Retinal Atrophy (Basenji Type)	WT/WT	Normal (Clear)
<u>Progressive Retinal Atrophy (Bullmastiff/Mastiff Type)</u>	WT/WT	Normal (Clear)
<u>Progressive Retinal Atrophy (Giant Schnauzer Type)</u>	WT/WT	Normal (Clear)
<u>Progressive Retinal Atrophy (Irish Setter Type)</u>	WT/WT	Normal (Clear)
<u>Progressive Retinal Atrophy (Shetland Sheepdog Type)</u>	WT/WT	Normal (Clear)
<u>Progressive Retinal Atrophy (Sloughi Type)</u>	WT/WT	Normal (Clear)
<u>Progressive Retinal Atrophy, Cone-Rod Dystrophy</u> (<u>Dachshund Type</u>)	WT/WT	Normal (Clear)
<u>Progressive Retinal Atrophy, Cone-Rod Dystrophy 1</u> (American Staffordshire Terrier Type)	WT/WT	Normal (Clear)
<u>Progressive Retinal Atrophy, Cone-Rod Dystrophy 2</u> (American Staffordshire Terrier Type)	WT/WT	Normal (Clear)
<u>Progressive Retinal Atrophy, Cone-Rod Dystrophy 3</u> (Glen of Imaal Terrier Type)	WT/WT	Normal (Clear)
Progressive Retinal Atrophy, Cone-Rod Dystrophy 4	WT/WT	Normal (Clear)
<u>Progressive Retinal Atrophy, Early Onset (Spanish Water Dog Type)</u>	WT/WT	Normal (Clear)
<u>Progressive Retinal Atrophy, Early-Onset (Portuguese Water Dog Type)</u>	WT/WT	Normal (Clear)
<u>Progressive Retinal Atrophy, Generalized</u> (<u>Schapendoes Type</u>)	WT/WT	Normal (Clear)
Progressive Retinal Atrophy, Golden Retriever 1	WT/WT	Normal (Clear)
Progressive Retinal Atrophy, Golden Retriever 2	WT/WT	Normal (Clear)
<u>Progressive Retinal Atrophy, Late-Onset (Lapponian Herder Type)</u>	WT/WT	Normal (Clear)

Progressive Retinal Atrophy, PRA1 (Papillon Type)	WT/WT	Normal (Clear)
<u>Progressive Retinal Atrophy, PRA3 (Tibetan Terrier and Spaniel Type)</u>	WT/WT	Normal (Clear)
<u>Progressive Retinal Atrophy, Progressive Rod-Cone</u> <u>Degeneration (prcd)</u>	WT/WT	Normal (Clear)
Progressive Retinal Atrophy, Rod-Cone Dysplasia 3	WT/WT	Normal (Clear)
Progressive Retinal Atrophy, Rod-Cone Dysplasia 4	WT/WT	Normal (Clear)
<u>Progressive Retinal Atrophy, Syndromic Retinal</u> <u>Degeneration (Shetland Sheepdog Type)</u>	WT/WT	Normal (Clear)
<u>Progressive Retinal Atrophy, X-Linked 1 (Husky Type)</u>	WT/WT	X-Linked Female Normal
Progressive Retinal Atrophy, X-linked 2	WT/WT	X-Linked Female Normal
<u>Protein Losing Nephropathy</u>	WT/WT, WT/WT	Normal (Clear) - No Increased Risk
Protein Losing Nephropathy (Variant 1) Protein Losing Nephropathy (Variant 2)	0	
<u>Pyruvate Dehydrogenase Deficiency</u>	WT/WT	Normal (Clear)
<u>Pyruvate Kinase Deficiency (Basenji Type)</u>	WT/WT	Normal (Clear)
Pyruvate Kinase Deficiency (Beagle Type)	WT/WT	Normal (Clear)
<u>Pyruvate Kinase Deficiency (Labrador Retriever Type)</u>	WT/WT	Normal (Clear)
Pyruvate Kinase Deficiency (Pug Type)	WT/WT	Normal (Clear)
<u>Pyruvate Kinase Deficiency (Terrier Type)</u>	WT/WT	Normal (Clear)
Recurrent Inflammatory Pulmonary Disease	WT/WT	Normal (Clear)
Renal Cystadenocarcinoma and Nodular Dermatofibrosis	WT/WT	Normal (Clear)
Retinal Dysplasia/Oculoskeletal Dysplasia 1	WT/WT	Normal (Clear)
Retinal Dysplasia/Oculoskeletal Dysplasia 2	WT/WT	Normal (Clear)
Sensory Neuropathy (Border Collie Type)	WT/WT	Normal (Clear)
<u>Severe Combined Immunodeficiency Disease (Terrier Type)</u>	WT/WT	Normal (Clear)
<u>Severe Combined Immunodeficiency Disease</u> (Wetterhoun Type)	WT/WT	Normal (Clear)
<u>Severe Combined Immunodeficiency Disease, X-Linked (Basset Hound Type)</u>	WT/WT	X-Linked Female Normal
<u>Severe Combined Immunodeficiency Disease, X-Linked (Corgi Type)</u>	WT/WT	X-Linked Female Normal

Shar-Pei Autoinflammatory Disease	WT/WT	Normal (Clear)
Skeletal Dysplasia 2	WT/WT	Normal (Clear)
<u>Spinal Dysraphism</u>	WT/WT	Normal (Clear)
Spinocerebellar Ataxia (Alpine Dachsbrake Type)	WT/WT	Normal (Clear)
Spinocerebellar Ataxia (Terrier Type)	WT/WT	Normal (Clear)
Spondylocostal Dysostosis	WT/WT	Normal (Clear)
Stargardt Disease	WT/WT	Normal (Clear)
Startle Disease	WT/WT	Normal (Clear)
<u>Subacute Necrotizing Encephalopathy (Yorkshire Terrier Type)</u>	WT/WT	Normal (Clear)
<u>Thrombopathia (American Eskimo Dog Type)</u>	WT/WT	Normal (Clear)
Thrombopathia (Basset Hound Type)	WT/WT	Normal (Clear)
Thrombopathia (Newfoundland Type)	WT/WT	Normal (Clear)
<u>Trapped Neutrophil Syndrome</u>	WT/WT	Normal (Clear)
<u>Ullrich Congenital Muscular Dystrophy (Labrador Retriever Type 1)</u>	WT/WT	Normal (Clear)
<u>Ullrich Congenital Muscular Dystrophy (Labrador Retriever Type 2)</u>	WT/WT	Normal (Clear)
<u>Urolithiasis (Native American Indian Dog Type)</u>	WT/WT	Normal (Clear)
Van Den Ende-Gupta Syndrome	WT/WT	Normal (Clear)
Von Willebrand Disease I	WT/WT	Normal (Clear)
Von Willebrand Disease II	WT/WT	Normal (Clear)
Von Willebrand Disease III (Kooikerhondje Type)	WT/WT	Normal (Clear)
Von Willebrand Disease III (Scottish Terrier Type)	WT/WT	Normal (Clear)
Von Willebrand Disease III (Shetland Sheepdog Type)	WT/WT	Normal (Clear)
	WT: wild type (normal)	M: mutant V: V chromosome (male)

WT: (wild type (normal) M: (mutant Y: Y chromosome (male)

Helm Short Chills

Associate Laboratory Director

Medical Director

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