Canine HealthCheck

Demographic Information

Call Name	Peanut	DOB	July 19, 2023
Registered Name		Registration Number	
Breed	Toy Australian Shepherd	Tattoo	
Sex	Male	Microchip	
Owner	Jennifer Hoyt	Laboratory #	420011
		Report Date	October 5, 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 unacceptable level of tests with no results, you will be contacted for a new sample to repeat the testing.

Please review our testing terms and disclaimers regarding your results.

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

Breed Profile

Disease Name	Genotype	Interpretation
Coagulation Factor VII Deficiency	WT/WT	Normal (Clear)
Collie Eye Anomaly	WT/WT	Normal (Clear)
Cone Degeneration	WT/WT	Normal (Clear)
Craniomandibular Osteopathy	WT/WT	Normal (Clear)
Degenerative Myelopathy	WT/WT	Normal (Clear)
Degenerative Myelopathy (Bernese Mountain Dog Variant)	0	
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)
Hyperuricosuria	WT/WT	Normal (Clear)
Intervertebral Disc Disease Risk Factor and Chondrodystrophy (CDDY with IVDD)	WT/WT	Normal (Clear)
Intestinal Cobalamin Malabsorption (Border Collie Type)	WT/WT	Normal (Clear)
Junctional Epidermolysis Bullosa (Australian Shepherd Type)	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)
Progressive Retinal Atrophy, Progressive Rod-Cone Degeneration (prcd)	WT/WT	Normal (Clear)
Von Willebrand Disease I	WT/WT	Normal (Clear)

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Coat Colors & Traits

Trait Name	Genotype	Interpretation

A Locus (Agouti)	a^t/a^t	Tricolor, black and tan
A^s Locus (Saddle Tan)	N/N	No saddle tan/creeping tan
B Locus (Brown)	b/b	Brown coat, nose and foot pads (carries two copies of brown)
B Locus (Brown) - b^a	0	
B Locus (Brown) - b^c	2	
B Locus (Brown) - b^d	2	
B Locus (Brown) - b^h	0	
B Locus (Brown) - b^e	0	
B Locus (Brown) - b^s	0	
Brachycephaly	BR/BR	Likely medium to long muzzle
Chondrodysplasia (CDPA)	cd/cd	Likely typical leg length
Co Locus (Cocoa, French Bulldog Type)	CO/CO	Black coat, nose and foot pads (does not carry cocoa)
Cu Locus (Curly Hair)	Cu/Cu	Straight coat
D Locus (Dilute)	D/D	Non-dilute (does not carry dilute)
D Locus (Dilute) - d^1	0	
D Locus (Dilute) - d^2	0	
D Locus (Dilute) - d^3	0	
E Locus	E/E	Black
E Locus - E^m (Melanistic Mask)	0	
E Locus - E^g (Grizzle, Afghan Hound Type)	0	
E Locus - E^h (Sable, Cocker Spaniel Type)	0	
E Locus - e^A (Ancient Red, Spitz and Scent Hound Type)	0	
E Locus - e^1 (Yellow/Red)	0	
E Locus - e^2 (Cream, Australian Cattle Dog Type)	0	
E Locus - e^3 (White, Alaskan and Siberian Husky Type)	0	
H Locus (Harlequin, Great Dane Type)	h/h	No harlequin
Hairlessness	Rh/Rh	Coated
Hairlessness (American Hairless Terrier Type) - rh^1	0	
Hairlessness (Scottish Deerhound Type) - rh^2	0	
Hr Locus (FOXI3 Hairless Gene Test, Mexican Hairless, Peruvian Hairless and Chinese Crested Type)	hr/hr	Coated
I Locus (Intensity)	I/i	Normal intensity (carrier)

IC Locus (Improper Coat/Furnishings)	IC/IC	No furnishings, improper coat
K Locus (Dominant Black)	k^y/k^y	Agouti expression allowed
L Locus (Long Hair/Fluffy)	Lh^1/Lh^1	Longhaired (carries two copies of long hair)
L Locus (Long Hair/Fluffy) - Lh^1	2	
L Locus (Long Hair/Fluffy) - Lh^2	0	
L Locus (Long Hair/Fluffy) - Lh^3	0	
L Locus (Long Hair/Fluffy) - Lh^4	0	
M Locus (Merle)	m/m	Non merle
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^{Ti}/r	Ticked (carries non-roan)
R Locus (Roan/Ticked) - R^{Ti}	1	
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/Y	Male
Social Behavior	WT/WT; WT/WT	May demonstrate less social behavior
Social Behavior, Variant 1	0	
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	Genotype	Interpretation
Acral Mutilation Syndrome	WT/WT	Normal (Clear)

Acute Respiratory Distress Syndrome	WT/WT	Normal (Clear)
Adult Paroxysmal Dyskinesia	WT/WT	Normal (Clear)
Afibrinogenemia (Dachshund Type)	WT/WT	Normal (Clear)
Alaskan Husky Encephalopathy	WT/WT	Normal (Clear)
Alaskan Malamute Polyneuropathy	WT/WT	Normal (Clear)
Amelogenesis Imperfecta (Italian Greyhound Type)	WT/WT	Normal (Clear)
Amelogenesis Imperfecta (Parson Russell Terrier Type)	WT/WT	Normal (Clear)
Ataxia (Norwegian Buhund Type)	WT/WT	Normal (Clear)
Benign Familial Juvenile Epilepsy	WT/WT	Normal (Clear)
Bernard-Soulier Syndrome	WT/WT	Normal (Clear)
Canine Multiple System Degeneration (Chinese Crested Type)	WT/WT	Normal (Clear)
Canine Multiple System Degeneration (Kerry Blue Terrier Type)	WT/WT	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)
Cerebellar Ataxia (Finnish Hound Type)	WT/WT	Normal (Clear)
Cerebellar Ataxia 1 (Belgian Shepherd Type)	WT/WT	Normal (Clear)
Cerebellar Ataxia 2 (Belgian Shepherd Type)	WT/WT	Normal (Clear)
Cerebellar Cortical Degeneration	WT/WT	Normal (Clear)
Cerebellar Degeneration	WT/WT	Normal (Clear)
Charcot-Marie-Tooth Disease	WT/WT	Normal (Clear)
Chondrodysplasia (Karelian Bear Dog and Norwegian Elkhound Type)	WT/WT	Normal (Clear)
Cleft Palate and Syndactyly (Nova Scotia Duck Tolling Retriever Type)	WT/WT	Normal (Clear)
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)
Cone Degeneration (German Shorthaired Pointer Type)	WT/WT	Normal (Clear)
Cone Degeneration (Labrador Retriever Type)	WT/WT	Normal (Clear)
Congenital Hypothyroidism with Goiter (Terrier Type)	WT/WT	Normal (Clear)
Congenital Idiopathic Megaesophagus Risk Factor (German Shepherd Type)	WT/WT	Normal (Clear)
Congenital Macrothrombocytopenia (Cairn and Norfolk Terrier Type)	WT/WT	Normal (Clear)
Congenital Methemoglobinemia	WT/WT	Normal (Clear)
Congenital Myasthenic Syndrome (Golden Retriever Type)	WT/WT	Normal (Clear)
Congenital Myasthenic Syndrome (Jack Russell Terrier Type)	WT/WT	Normal (Clear)
Congenital Myasthenic Syndrome (Labrador Retriever Type)	WT/WT	Normal (Clear)
Congenital Myasthenic Syndrome (Old Danish Pointer Type)	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)
Cystinuria (Labrador Retriever Type)	WT/WT	Normal (Clear)
Cystinuria (Miniature Pinscher Type)	WT/WT	Normal (Clear)
Cystinuria (Newfoundland Type)	WT/WT	Normal (Clear)
Cystinuria Type 3 (Bulldog Type Risk Factor, Variant 3)	WT/WT	Normal (Clear)
Cystinuria Type 3 (Bulldog Type Risk Factor, Variants 1 and 2)	WT/WT	Normal (Clear)
Cystinuria Type 3 (Bulldog Type Risk Factor, Variant 1)	0	
Cystinuria Type 3 (Bulldog Type Risk Factor, Variant 2)	0	
Dandy-Walker-Like Malformation	WT/WT	Normal (Clear)
Darier Disease and Associated Infundibular Cyst Formation	WT/WT	Normal (Clear)

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

Elliptocytosis	WT/WT	Normal (Clear)
Epidermolytic Hyperkeratosis	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)
Fucosidosis	WT/WT	Normal (Clear)
Gallbladder Mucoceles	WT/WT	Normal (Clear)
Glanzmann's Thrombasthenia (Great Pyrenees Type)	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 Ia	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)
GM1 Gangliosidosis (Alaskan Husky Type)	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)
Greyhound Polyneuropathy	WT/WT	Normal (Clear)
Hemophilia A (Boxer Type)	WT/Y	X-Linked Male Normal
Hemophilia A (German Shepherd Dog, Type 1)	WT/Y	X-Linked Male Normal
Hemophilia A (German Shepherd Dog, Type 2)	WT/Y	X-Linked Male Normal
Hemophilia A (Rhodesian Ridgeback Type)	WT/Y	X-Linked Male Normal

Hemophilia B (Cairn Terrier Type)	WT/Y	X-Linked Male Normal
Hemophilia B (Lhasa Apso Type)	WT/Y	X-Linked Male Normal
Hemophilia B (Rhodesian Ridgeback Type)	WT/Y	X-Linked Male Normal
Hereditary Ataxia (Australian Shepherd Type)	WT/WT	Normal (Clear)
Hereditary Cataracts (Australian Shepherd Type)	WT/WT	Normal (Clear)
Hereditary Cataracts	WT/WT	Normal (Clear)
Hereditary Cataracts (Wirehaired Pointing Griffon Type)	WT/WT	Normal (Clear)
Hereditary Footpad Hyperkeratosis (Irish Terrier and Kromfohrländer Type)	WT/WT	Normal (Clear)
Hereditary Footpad Hyperkeratosis (Rottweiler Type)	WT/WT	Normal (Clear)
Hereditary Nasal Parakeratosis (Greyhound Type)	WT/WT	Normal (Clear)
Hereditary Nasal Parakeratosis (Labrador Retriever Type)	WT/WT	Normal (Clear)
Hereditary Nephritis (Samoyed Type)	WT/Y	X-Linked Male Normal
Hyperuricosuria	WT/WT	Normal (Clear)
Hypomyelination (Weimaraner Type)	WT/WT	Normal (Clear)
Ichthyosis (American Bulldog Type)	WT/WT	Normal (Clear)
Ichthyosis (Golden Retriever Type 1)	WT/WT	Normal (Clear)
Ichthyosis (Golden Retriever Type 2)	WT/WT	Normal (Clear)
Ichthyosis (Great Dane Type)	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)
Intestinal Cobalamin Malabsorption (Border Collie Type)	WT/WT	Normal (Clear)
Intestinal Cobalamin Malabsorption (Giant Schnauzer Type)	WT/WT	Normal (Clear)
Intestinal Lipid Malabsorption	WT/WT	Normal (Clear)
Junctional Epidermolysis Bullosa (Australian Shepherd Type)	WT/WT	Normal (Clear)

Juvenile Laryngeal Paralysis and Polyneuropathy (Black Russian Terrier Type)	WT/WT	Normal (Clear)
Juvenile Myoclonic 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 I	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)	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 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)
Mucopolysaccharidosis VII (Shepherd Type)	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/Y	X-Linked Male 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/Y	X-Linked Male Normal
Myotubular Myopathy 1 (Labrador Retriever Type)	WT/Y	X-Linked Male Normal
Myotubular Myopathy 1 (Rottweiler Type)	WT/Y	X-Linked Male 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)
Neuronal Ceroid Lipofuscinosis 5 (Golden Retriever Type)	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)
Osteochondrodysplasia	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	0	
Pancreatitis (Miniature Schnauzer Type Risk Factor), Variant 2	0	
Pancreatitis (Miniature Schnauzer Type Risk Factor), Variant 3	0	
Pembroke Welsh Corgi Duchenne Muscular Dystrophy	WT/Y	X-Linked Male 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)
Pompe Disease	WT/WT	Normal (Clear)
Prekallikrein Deficiency	WT/WT	Normal (Clear)
Primary Ciliary Dyskinesia (Alaskan Malamute Type)	WT/WT	Normal (Clear)
Primary Ciliary Dyskinesia (Old English Sheepdog Type)	WT/WT	Normal (Clear)
Primary Hyperoxaluria	WT/WT	Normal (Clear)
Primary Lens Luxation	WT/WT	Normal (Clear)

Primary Open Angle Glaucoma (Basset Fauve de Bretagne Type)	WT/WT	Normal (Clear)
Primary Open Angle Glaucoma (Basset Hound Type)	WT/WT	Normal (Clear)
Primary Open Angle Glaucoma	WT/WT	Normal (Clear)
Primary Open Angle Glaucoma (Norwegian Elkhound Type)	WT/WT	Normal (Clear)
Primary Open Angle Glaucoma and Primary Lens Luxation (Shar Pei Type)	WT/WT	Normal (Clear)
Progressive Retinal Atrophy (Basenji Type)	WT/WT	Normal (Clear)
Progressive Retinal Atrophy (Bullmastiff/Mastiff Type)	WT/WT	Normal (Clear)
Progressive Retinal Atrophy (Giant Schnauzer Type)	WT/WT	Normal (Clear)
Progressive Retinal Atrophy (Irish Setter Type)	WT/WT	Normal (Clear)
Progressive Retinal Atrophy (Shetland Sheepdog Type)	WT/WT	Normal (Clear)
Progressive Retinal Atrophy (Sloughi Type)	WT/WT	Normal (Clear)
Progressive Retinal Atrophy, Cone-Rod Dystrophy (Dachshund Type)	WT/WT	Normal (Clear)
Progressive Retinal Atrophy, Cone-Rod Dystrophy 1 (American Staffordshire Terrier Type)	WT/WT	Normal (Clear)
Progressive Retinal Atrophy, Cone-Rod Dystrophy 2 (American Staffordshire Terrier Type)	WT/WT	Normal (Clear)
Progressive Retinal Atrophy, Cone-Rod Dystrophy 3 (Glen of Imaal Terrier Type)	WT/WT	Normal (Clear)
Progressive Retinal Atrophy, Cone-Rod Dystrophy 4	WT/WT	Normal (Clear)
Progressive Retinal Atrophy, Early Onset (Spanish Water Dog Type)	WT/WT	Normal (Clear)
Progressive Retinal Atrophy, Early-Onset (Portuguese Water Dog Type)	WT/WT	Normal (Clear)
Progressive Retinal Atrophy, Generalized (Schapendoes Type)	WT/WT	Normal (Clear)
Progressive Retinal Atrophy, Golden Retriever 1	WT/WT	Normal (Clear)
Progressive Retinal Atrophy, Golden Retriever 2	WT/WT	Normal (Clear)
Progressive Retinal Atrophy, Late-Onset (Lapponian Herder Type)	WT/WT	Normal (Clear)
Progressive Retinal Atrophy, PRA1 (Papillon Type)	WT/WT	Normal (Clear)

Progressive Retinal Atrophy, PRA3 (Tibetan Terrier and Spaniel Type)	WT/WT	Normal (Clear)
Progressive Retinal Atrophy, Progressive Rod-Cone Degeneration (prcd)	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)
Progressive Retinal Atrophy, Syndromic Retinal Degeneration (Shetland Sheepdog Type)	WT/WT	Normal (Clear)
Progressive Retinal Atrophy, X-Linked 1 (Husky Type)	WT/Y	X-Linked Male Normal
Progressive Retinal Atrophy, X-linked 2	WT/Y	X-Linked Male Normal
Protein Losing Nephropathy	WT/WT, WT/WT	Normal (Clear) - No Increased Risk
Protein Losing Nephropathy (Variant 1) Protein Losing Nephropathy (Variant 2)	0 0	
Pyruvate Dehydrogenase Deficiency	WT/WT	Normal (Clear)
Pyruvate Kinase Deficiency (Basenji Type)	WT/WT	Normal (Clear)
Pyruvate Kinase Deficiency (Beagle Type)	WT/WT	Normal (Clear)
Pyruvate Kinase Deficiency (Labrador Retriever Type)	WT/WT	Normal (Clear)
Pyruvate Kinase Deficiency (Pug Type)	WT/WT	Normal (Clear)
Pyruvate Kinase Deficiency (Terrier Type)	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)
Severe Combined Immunodeficiency Disease (Terrier Type)	WT/WT	Normal (Clear)
Severe Combined Immunodeficiency Disease (Wetterhoun Type)	WT/WT	Normal (Clear)
Severe Combined Immunodeficiency Disease, X-Linked (Basset Hound Type)	WT/Y	X-Linked Male Normal
Severe Combined Immunodeficiency Disease, X-Linked (Corgi Type)	WT/Y	X-Linked Male Normal
Shar-Pei Autoinflammatory Disease	WT/WT	Normal (Clear)

Skeletal Dysplasia 2	WT/WT	Normal (Clear)
Spinal Dysraphism	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	No Result	No Result
Startle Disease	WT/WT	Normal (Clear)
Subacute Necrotizing Encephalopathy (Yorkshire Terrier Type)	WT/WT	Normal (Clear)
Thrombopathia (American Eskimo Dog Type)	WT/WT	Normal (Clear)
Thrombopathia (Basset Hound Type)	WT/WT	Normal (Clear)
Thrombopathia (Newfoundland Type)	WT/WT	Normal (Clear)
Trapped Neutrophil Syndrome	WT/WT	Normal (Clear)
Ullrich Congenital Muscular Dystrophy (Labrador Retriever Type 1)	WT/WT	Normal (Clear)
Ullrich Congenital Muscular Dystrophy (Labrador Retriever Type 2)	WT/WT	Normal (Clear)
Urolithiasis (Native American Indian Dog Type)	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 Y: Y chromosome (male)

Helen F Smith, PhD

Christina J Ramirez, PhD, DVM, DACVP

Associate Laboratory Director

Medical Director

Canine HealthCheck® is a product of Paw Print Genetics®. This test was developed and its performance determined by Paw Print Genetics. This laboratory has established and verified the test's accuracy and precision with >99% sensitivity and specificity. The results included in this report relate only to the items tested using the sample provided. The presence of mosaicism may not be detected by this test. Non-paternity may lead to unexpected results. This is not a diagnostic test. This is not a breed identification test. Because all tests are DNA-based, rare genomic variations may interfere with the performance of some individual tests producing false results. If you think any results are in error, please contact the laboratory for further evaluation.

GENSOL DIAGNOSTICS
www.gensoldx.com

Micah Halpern, PhD
Principal Scientist

Mary Simonson
Laboratory Manager

CERTIFICATE OF RESULTS FOR SAMPLE ID #: 499819

OWNER'S NAME: JENNIFER HOYT
PET'S NAME*: PEANUT
PET'S REGISTRATION #: NOT PROVIDED
PET'S BREED: TOY AUSTRALIAN SHEPHERD
DATE TESTED: 3/18/2025

TEST	RESULT**	TEST RESULT EXPLANATION***
NEUROAXONAL DYSTROPHY SHEPHERD TYPE (NAD-SHEP)	B	(CARRIER/NOT AFFECTED): These dogs have one copy of the normal gene and one copy of the mutation associated with this disease. They will not develop Neuroaxonal Dystrophy.

*GenSol warrants its test results to be accurate for the sample obtained from the above pet. In the event of a valid claim, owner's sole remedy is a refund of the fee paid. IN NO EVENT SHALL GENSOL BE LIABLE FOR INDIRECT, CONSEQUENTIAL OR INCIDENTAL DAMAGES OF ANY KIND. Any claim must be asserted within one year of the report of test results.

**All samples submitted to GenSol become the property of GenSol and may be used for internal quality control and/or research purposes. Test results provide information concerning a pet's DNA sequence and are not an indication or guarantee of pet's disease state or condition. Test results alone should not be used to diagnosis, treat or prevent disease.

***For detailed result explanation visit www.gensoldx.com. Please consult a licensed veterinarian to discuss the implications.

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