



## Demographic Information

|                 |                        |                |                 |
|-----------------|------------------------|----------------|-----------------|
| Call Name       | Angel                  | DOB            | June 3, 2023    |
| Registered Name | Moonlit Acres Angel    | Registration # | -               |
| Breed           | Australian Labradoodle | Tattoo         | -               |
| Sex             | Female                 | Microchip      | 956000016782168 |
| Owner           | Dana Logan             | Laboratory #   | 405858          |
|                 |                        | Report Date    | July 13, 2023   |

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

## Explanation of Results

|                           |                                                                                                                                                                                                                                                                                                                                                                                                            |
|---------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Normal</b>             | A 'Normal' result means that your dog does not have the mutation that causes the associated genetic disease.                                                                                                                                                                                                                                                                                               |
| <b>Carrier</b>            | 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.                                                                                                                                 |
| <b>Carrier / At-Risk</b>  | 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 cats with two copies of this mutation. |
| <b>At-Risk / Affected</b> | 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 |
|-------------------------------------------------------------------------------|----------|----------------|
| Centronuclear Myopathy                                                        | WT/WT    | Normal (Clear) |
| Cone Degeneration (Labrador Retriever Type)                                   | WT/WT    | Normal (Clear) |
| Congenital Myasthenic Syndrome (Labrador Retriever Type)                      | WT/WT    | Normal (Clear) |
| Cystinuria (Labrador Retriever Type)                                          | WT/WT    | Normal (Clear) |
| Degenerative Myelopathy                                                       | WT/M     | Carrier        |
| Degenerative Myelopathy (Bernese Mountain Dog Variant)                        | 0        |                |
| Degenerative Myelopathy (Common Variant)                                      | 1        |                |
| Elliptocytosis                                                                | WT/WT    | Normal (Clear) |
| Exercise-Induced Collapse                                                     | WT/M     | Carrier        |
| Familial Nephropathy (Cocker Spaniel Type)                                    | WT/WT    | Normal (Clear) |
| Gallbladder Mucoceles                                                         | WT/WT    | Normal (Clear) |
| Glycogen Storage Disease VII, PFK Deficiency                                  | WT/WT    | Normal (Clear) |
| GM2 Gangliosidosis (Poodle Type)                                              | WT/WT    | Normal (Clear) |
| Hereditary Cataracts                                                          | WT/WT    | Normal (Clear) |
| Hereditary Nasal Parakeratosis                                                | WT/WT    | Normal (Clear) |
| Hyperuricosuria                                                               | WT/WT    | Normal (Clear) |
| Ichthyosis (Golden Retriever Type 1)                                          | WT/WT    | Normal (Clear) |
| Intervertebral Disc Disease Risk Factor and Chondrodystrophy (CDDY with IVDD) | WT/WT    | Normal (Clear) |
| Macular Corneal Dystrophy (Labrador Retriever Type)                           | WT/WT    | Normal (Clear) |

|                                                                       |       |                        |
|-----------------------------------------------------------------------|-------|------------------------|
| Multidrug Resistance 1                                                | WT/WT | Normal (Clear)         |
| Myotubular Myopathy 1                                                 | WT/WT | X-Linked Female Normal |
| Narcolepsy (Labrador Retriever Type)                                  | WT/WT | Normal (Clear)         |
| Neonatal Encephalopathy with Seizures                                 | WT/WT | Normal (Clear)         |
| Osteochondrodysplasia                                                 | WT/WT | Normal (Clear)         |
| Progressive Retinal Atrophy, Cone-Rod Dystrophy 4 (crd4/cord1)        | WT/WT | Normal (Clear)         |
| Progressive Retinal Atrophy, Golden Retriever 2                       | WT/WT | Normal (Clear)         |
| Progressive Retinal Atrophy, Progressive Rod-Cone Degeneration (prcd) | WT/WT | Normal (Clear)         |
| Pyruvate Kinase Deficiency (Labrador Retriever Type)                  | WT/WT | Normal (Clear)         |
| Retinal Dysplasia/Oculoskeletal Dysplasia 1                           | WT/WT | Normal (Clear)         |
| Skeletal Dysplasia 2                                                  | WT/WT | Normal (Clear)         |
| Von Willebrand Disease I                                              | WT/WT | Normal (Clear)         |

WT: wild type (normal)

M: mutant

Y: Y chromosome (male)

## Coat Colors & Traits

| Trait Name                                                                                                                                                                                                                                                                                               | Genotype                       | Interpretation                 |                                  |   |  |                                  |   |  |                                  |   |  |                                  |   |  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|--------------------------------|----------------------------------|---|--|----------------------------------|---|--|----------------------------------|---|--|----------------------------------|---|--|
| A Locus (Agouti)                                                                                                                                                                                                                                                                                         | a <sup>t</sup> /a <sup>t</sup> | Tricolor, black and tan        |                                  |   |  |                                  |   |  |                                  |   |  |                                  |   |  |
| A <sup>s</sup> Locus (Saddle Tan)                                                                                                                                                                                                                                                                        | N/N                            | No saddle tan/creeping tan     |                                  |   |  |                                  |   |  |                                  |   |  |                                  |   |  |
| B Locus (Brown)                                                                                                                                                                                                                                                                                          | b/b                            | Brown coat, nose and foot pads |                                  |   |  |                                  |   |  |                                  |   |  |                                  |   |  |
| <table> <tr> <td>B Locus (Brown) - b<sup>a</sup></td><td>0</td><td></td></tr> <tr> <td>B Locus (Brown) - b<sup>c</sup></td><td>2</td><td></td></tr> <tr> <td>B Locus (Brown) - b<sup>d</sup></td><td>2</td><td></td></tr> <tr> <td>B Locus (Brown) - b<sup>s</sup></td><td>0</td><td></td></tr> </table> |                                |                                | B Locus (Brown) - b <sup>a</sup> | 0 |  | B Locus (Brown) - b <sup>c</sup> | 2 |  | B Locus (Brown) - b <sup>d</sup> | 2 |  | B Locus (Brown) - b <sup>s</sup> | 0 |  |
| B Locus (Brown) - b <sup>a</sup>                                                                                                                                                                                                                                                                         | 0                              |                                |                                  |   |  |                                  |   |  |                                  |   |  |                                  |   |  |
| B Locus (Brown) - b <sup>c</sup>                                                                                                                                                                                                                                                                         | 2                              |                                |                                  |   |  |                                  |   |  |                                  |   |  |                                  |   |  |
| B Locus (Brown) - b <sup>d</sup>                                                                                                                                                                                                                                                                         | 2                              |                                |                                  |   |  |                                  |   |  |                                  |   |  |                                  |   |  |
| B Locus (Brown) - b <sup>s</sup>                                                                                                                                                                                                                                                                         | 0                              |                                |                                  |   |  |                                  |   |  |                                  |   |  |                                  |   |  |
| Brachycephaly                                                                                                                                                                                                                                                                                            | BR/BR                          | Likely medium to long muzzle   |                                  |   |  |                                  |   |  |                                  |   |  |                                  |   |  |
| Chondrodysplasia (CDPA)                                                                                                                                                                                                                                                                                  | cd/cd                          | Likely typical leg length      |                                  |   |  |                                  |   |  |                                  |   |  |                                  |   |  |

|                                                                                                          |                                    |                                                              |
|----------------------------------------------------------------------------------------------------------|------------------------------------|--------------------------------------------------------------|
| <b>Co Locus (Cocoa, French Bulldog Type)</b>                                                             | <b>CO/CO</b>                       | <b>Black coat, nose and foot pads (does not carry cocoa)</b> |
| <b>Cu Locus (Curly Hair)</b>                                                                             | <b>Cu/Cu<sup>C</sup></b>           | <b>Curly/wavy coat (carrier)</b>                             |
| <b>D Locus (Dilute)</b>                                                                                  | <b>D/D</b>                         | <b>Non dilute</b>                                            |
| D Locus (Dilute) - d <sup>1</sup>                                                                        | 0                                  |                                                              |
| D Locus (Dilute) - d <sup>2</sup>                                                                        | 0                                  |                                                              |
| <b>E Locus (Yellow/Red)</b>                                                                              | <b>e/e</b>                         | <b>Yellow/red</b>                                            |
| <b>E<sup>g</sup> Locus (Grizzle, Afghan Hound Type)</b>                                                  | <b>N/N</b>                         | <b>No grizzle</b>                                            |
| <b>E<sup>h</sup> Locus (Sable, Cocker Spaniel Type)</b>                                                  | <b>N/N</b>                         | <b>No sable</b>                                              |
| <b>E<sup>m</sup> Locus (Melanistic Mask)</b>                                                             | <b>N/N</b>                         | <b>No melanistic mask</b>                                    |
| <b>H Locus (Harlequin, Great Dane Type)</b>                                                              | <b>h/h</b>                         | <b>No harlequin</b>                                          |
| <b>Hr Locus (FOXI3 Hairless Gene Test, Mexican Hairless, Peruvian Hairless and Chinese Crested Type)</b> | <b>hr/hr</b>                       | <b>Coated</b>                                                |
| <b>I Locus (Intensity)</b>                                                                               | <b>I/I</b>                         | <b>Normal intensity</b>                                      |
| <b>IC Locus (Improper Coat/Furnishings)</b>                                                              | <b>F/F</b>                         | <b>Furnishings</b>                                           |
| <b>K Locus (Dominant Black)</b>                                                                          | <b>K<sup>B</sup>/k<sup>y</sup></b> | <b>No agouti expression allowed (carrier)</b>                |
| <b>L Locus (Long Hair/Fluffy) - Lh<sup>1</sup>, Lh<sup>2</sup>, Lh<sup>4</sup></b>                       | <b>Lh/Lh</b>                       | <b>Longhaired</b>                                            |
| L Locus (Long Hair/Fluffy) - Lh <sup>1</sup>                                                             | 2                                  |                                                              |
| L Locus (Long Hair/Fluffy) - Lh <sup>2</sup>                                                             | 0                                  |                                                              |
| L Locus (Long Hair/Fluffy) - Lh <sup>4</sup>                                                             | 0                                  |                                                              |
| <b>M Locus (Merle)</b>                                                                                   | <b>m/m</b>                         | <b>Non merle</b>                                             |

|                                             |                  |                                                            |
|---------------------------------------------|------------------|------------------------------------------------------------|
| Polydactyly                                 | pd/pd            | Normal (typical) toes (likely no hind dewclaws)            |
| S Locus (White Spotting, Parti, or Piebald) | S/s <sup>p</sup> | Limited white spotting, flash, parti, or piebald (carrier) |
| SD Locus (Shedding)                         | sd/SD            | Moderate shedding                                          |
| Sex Determination - ZFX/Y                   | X/X              | Female                                                     |
| 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) |
| Alaskan Husky Encephalopathy                               | WT/WT    | Normal (Clear) |
| Alaskan Malamute Polyneuropathy                            | WT/WT    | Normal (Clear) |
| Amelogenesis Imperfecta                                    | WT/WT    | Normal (Clear) |
| Ataxia (Norwegian Buhund Type)                             | WT/WT    | Normal (Clear) |
| Benign Familial Juvenile Epilepsy                          | 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) |
| 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 Cortical Degeneration                                      | WT/WT | Normal (Clear) |
| Cerebellar Degeneration                                               | 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 Methemoglobinemia                                                  | 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) |
| 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) |
| Degenerative Myelopathy                                                       | WT/M  | Carrier        |
|                                                                               |       |                |
| Degenerative Myelopathy (Bernese Mountain Dog Variant)                        | 0     |                |
| Degenerative Myelopathy (Common Variant)                                      | 1     |                |
|                                                                               |       |                |
| Degenerative Myelopathy Early-Onset Risk Modifier (Pembroke Welsh Corgi Type) | WT/WT | Normal (Clear) |

|                                                                        |           |                        |
|------------------------------------------------------------------------|-----------|------------------------|
| 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                                       | WT/WT     | Normal (Clear)         |
| Early Retinal Degeneration                                             | 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)                                     | 0         |                        |
| Ehlers-Danlos Syndrome (Variant 2)                                     | 0         |                        |
| Elliptocytosis                                                         | WT/WT     | Normal (Clear)         |
| Epidermolytic Hyperkeratosis                                           | WT/WT     | Normal (Clear)         |
| Episodic Falling Syndrome                                              | No Result | No Result              |
| Exercise-Induced Collapse                                              | WT/M      | Carrier                |
| 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)         |
| Greyhound Polyneuropathy                             | WT/WT | Normal (Clear)         |
| Hemophilia A (Boxer Type)                            | 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 |
| Hemophilia B (Cairn Terrier Type)                                             | 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 |
| Hereditary Cataracts (Australian Shepherd Type)                               | WT/WT | Normal (Clear)         |
| Hereditary Cataracts                                                          | WT/WT | Normal (Clear)         |
| Hereditary Footpad Hyperkeratosis (Irish Terrier and Kromfohrländer Type)     | WT/WT | Normal (Clear)         |
| Hereditary Nasal Parakeratosis                                                | WT/WT | Normal (Clear)         |
| Hereditary Nasal Parakeratosis (Greyhound Type)                               | WT/WT | Normal (Clear)         |
| Hereditary Nephritis (Samoyed Type)                                           | WT/WT | X-Linked Female 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)         |
| 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) |
| Juvenile Laryngeal Paralysis and Polyneuropathy                | 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) |
| Lagotto Storage Disorder                                       | 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) |
| Lundehund Syndrome                                             | WT/WT | Normal (Clear) |
| Macular Corneal Dystrophy (Labrador Retriever Type)            | WT/WT | Normal (Clear) |
| May-Hegglin Anomaly                                            | WT/WT | Normal (Clear) |
| Mucopolysaccharidosis I                                        | WT/WT | Normal (Clear) |
| Mucopolysaccharidosis IIIA (Dachshund Type)                    | WT/WT | Normal (Clear) |
| Mucopolysaccharidosis IIIA (New Zealand Huntaway 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/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 (Schnauzer Type)                        | WT/WT | Normal (Clear)         |
| Myotubular Myopathy 1                                      | 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 Cerebellar Cortical Degeneration                  | WT/WT | Normal (Clear)         |
| Neonatal Encephalopathy with Seizures                      | 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 (Australian Cattle Dog/Border Collie Type) | WT/WT | Normal (Clear)         |
| Neuronal Ceroid Lipofuscinosis 5 (Golden Retriever 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)         |
| Oculocutaneous Albinism                                                     | 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)         |
| Pembroke Welsh Corgi Duchenne Muscular Dystrophy                            | WT/WT | X-Linked Female Normal |
| Persistent Müllerian Duct Syndrome                                          | 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                                            | 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                       | WT/WT        | Normal (Clear)                     |
| Progressive Retinal Atrophy, Cone-Rod Dystrophy 1                     | WT/WT        | Normal (Clear)                     |
| Progressive Retinal Atrophy, Cone-Rod Dystrophy 2                     | WT/WT        | Normal (Clear)                     |
| Progressive Retinal Atrophy, Cone-Rod Dystrophy 4 (crd4/cord1)        | WT/WT        | Normal (Clear)                     |
| Progressive Retinal Atrophy, Early Onset (Spanish Water Dog Type)     | WT/WT        | Normal (Clear)                     |
| Progressive Retinal Atrophy, Generalized                              | 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, 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, X-Linked 1                               | WT/WT        | X-Linked Female Normal             |
| Protein Losing Nephropathy                                            | WT/WT, WT/WT | Normal (Clear) - No Increased Risk |
| Protein Losing Nephropathy (Variant 1)                                | 0            |                                    |
| Protein Losing Nephropathy (Variant 2)                                | 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/WT | X-Linked Female Normal |
| Severe Combined Immunodeficiency Disease, X-Linked (Corgi Type)        | WT/WT | X-Linked Female Normal |
| Shar-Pei Autoinflammatory Disease                                      | WT/WT | Normal (Clear)         |
| Skeletal Dysplasia 2                                                   | WT/WT | Normal (Clear)         |
| Spinal Dysraphism                                                      | WT/WT | Normal (Clear)         |

|                                                     |       |                |
|-----------------------------------------------------|-------|----------------|
| Spinocerebellar Ataxia                              | WT/WT | Normal (Clear) |
| Spondylocostal Dysostosis                           | WT/WT | Normal (Clear) |
| Stargardt Disease                                   | WT/WT | Normal (Clear) |
| Startle Disease                                     | 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) |
| 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)



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