

Introduction

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PET GENETICS

Patient Information

Pet Name Rylee’s Honey Bear

Gender Female

Pet Owner Name Leslie Garner

Age 4 Years

About This Report

Welcome to the printable version of your pet’s report! This document provides a snapshot of the genetic insights we’ve uncovered about your pet.

To keep this printed version concise and easy to read, we’ve summarized key findings. For a deeper dive into your pet’s breed background and the full report content, we encourage you to visit the report in your Account.

Please note that any Health Predispositions with “At Risk” or “Carrier” status, or Physical Traits at “Likely to Have” or “Carrier” status, will have their own specific page; while those Health Predispositions analyzed as “Clear” or Traits as “Not Likely To Have” will be listed at the end of each section.

Thank you for trusting Basepaws with your pet’s genetic journey, we hope this report helps you learn more about what makes your pet unique.

What's Included

- **Summary**
- **Glossary**
- **Breed Analysis**
- **Genetic Health Predispositions**
- **Physical Traits**

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Summary

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Breeds Analysis

63% Irish Setter
37% Standard Poodle

Genetic Health Predispositions

0 **At Risk**

1 **Carrier**

Degenerative Myelopathy

211 **Clear**

Physical Traits

5 **Likely to Have**

Red/Yellow Coat

Black Coat, CBD103-related

Long-haired Coat

Curly Coat

Larger Body Size

1 **Carrier**

Shedding

18 **Not Likely to Have**

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Glossary

Health Marker Result Definitions

What does "At Risk" mean?
An "At Risk" result should always be shared with your veterinarian and can mean any of the following (below is a non-exhaustive list):

1. Your dog has one or two copies of the specific allele linked to the disease. However, the disease is complex because it is not determined by a single gene, but rather by the interaction of multiple genes and their variations, plus environmental factors.

2. Your dog has one copy of the specific allele linked to the disease, but there is a "gene dosage" effect. Gene dosage refers to the number of copies of a specific allele linked to the disease the dog inherited, and how this can affect the way the disease presents. In relation to a dog's risk, it essentially means that having one copy may cause a milder disease presentation, and having two copies may cause a more severe presentation. An example of a disease with a dosage effect is the bleeding disorder called von Willebrand Disease I.

3. Your dog has one or two copies of an allele associated with a disease inherited in an autosomal dominant fashion, making the possibility of the dog developing the disease highly likely.

4. Your dog has two copies of an allele associated with a disease inherited in an autosomal recessive fashion, making the possibility of the dog developing the disease highly likely.

What does "Carrier" mean?
In most cases, this means that the dog has one copy of an autosomal recessive disease-associated marker (mutated gene allele). For diseases with a recessive inheritance pattern, the dog will develop the disease only if it has two mutated alleles (two copies of the marker). Alternatively, the 'Carrier' result may mean that a female dog has one copy of a marker associated with a disease that follows an X-linked recessive inheritance pattern. As a carrier, your patient is not at risk for developing the disease, but its offspring may be at risk.

What does "Clear" mean?
The dog is negative (i.e., has zero copies) for all of the markers for which we tested that are known to be associated with a particular disease. This result, however, should not rule out the need to seek a professional diagnosis by a veterinarian, should the dog develop symptoms connected to this disease. It is still possible that the dog is positive for markers that are yet to be discovered that could be associated with a disease. In some cases, environmental factors could contribute to a dog's potential to develop the disease.

Trait Marker Result Definitions

What does "Likely To Have" mean?
This status means that your pet tested positive for the trait marker and that they are likely to display the trait. It could be for any of the following reasons:

1. The trait is dominant, and your dog has one or two copies of the gene variant needed to express the trait.

2. The trait is recessive, and your dog has two copies of the gene variant needed (one from each parent) to express the trait.

3. The trait is complex, and your dog has the required combination of the multiple genetic variants needed to express the trait.

What does "Carrier" mean?
Your dog has one copy of a marker associated with a specific physical trait; however, it is unlikely to be physically displaying the trait. This could be because the trait has an autosomal recessive pattern of inheritance (needs two copies to display physically) or because the physical presentation of the trait is associated with a specific combination of markers, of which your dog only has one.

What does "Not Likely To Have" mean?
Based on the your dog's genotype (collection of genes), it is unlikely that it is exhibiting this particular trait.

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Breed Analysis

Irish Setter

63%

The Irish Setter, also known as the Red Setter, is a breed with a rich history. Its origins can be traced back to Ireland in the 18th century, where it was developed as a versatile hunting dog, specializing in bird hunting and retrieving. The breed's ancestors include the Irish Water Spaniel, Irish Terrier, and possibly the English Setter and Gordon Setter. Over time, the breed's appearance was refined to emphasize its striking red coat and elegant, athletic build. Irish Setters have a luscious, silky coat that is moderately long. The coat is straight and lies close to the body, with feathering on the ears, chest, belly, legs, and tail.

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Breed Analysis

Standard Poodle

37%

The Standard Poodle is a noble, intelligent, and versatile breed, appreciated for its grace, agility, and exceptional trainability. Known alternately as "Poodle," "Caniche," "Barbone," or "Pudle" (derived from the German term for a puddle, "Pfütze"), it is one of three recognized sizes of poodles, the other two being the Miniature Poodle and the Toy Poodle. The Poodle's ancestry is widely debated, with many historians arguing that the breed originated in Germany, while the French have long claimed it as their own. Despite this contention, the breed's name comes from the German "Pudeln," meaning "to splash," hinting at its history as a water retriever. The breed’s development is often associated with France because it was in France where the Poodle's popularity soared. Poodles were used in several roles throughout history, from hunting and retrieving waterfowl to performing in circuses. They were originally bred for their water-resistant coats and excellent swimming abilities. They were particularly appreciated by duck hunters. The breed's famous haircut was designed to protect their vital organs and joints in cold water while not impeding their swimming ability. Over time, these functional trims have evolved into the more elaborate styles seen in dog shows today.

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Genetic Health Predispositions

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Disorder

Degenerative myelopathy

Result

Carrier

Category

Neurologic

Gene	Identified Copies
SOD1	1 copy

Description

Degenerative Myelopathy (DM) is a neurological disease that is thought to be caused by a genetic mutation. This disease initially results in paralysis of the hind limbs, which can progress to all limbs.

Inheritance

Autosomal Recessive

Signs and Symptoms

In early stages, the symptoms of DM resemble those of osteoarthritis, which often occurs secondary to hip dysplasia in many large dog breeds. In later stages of the disease, the progressive weakness (including skeletal muscle weakness) and ataxia (wobbling, stumbling) distinguish it from osteoarthritis of the hip joints. Other issues associated with this condition include spinal injuries, spinal tumors, narrowing of the spinal canal (lumbosacral stenosis), fibrocartilaginous embolism, and bacterial or fungal infection of the intervertebral disks and the adjacent vertebral bones (discospondylitis).

How it is Diagnosed

This disease may be suspected based on breed, medical history, physical examination, and diagnostic tests. X-rays and other spinal imaging techniques can help rule out other conditions, such as hip dysplasia and chronic arthritis, most often during the initial stages of degenerative myelopathy.

How it is Managed

Currently, there is no effective management for degenerative myelopathy. Supportive management, such as physical therapy, has been shown to prolong quality of life and preserve muscle mass.

Breeds Prevalence

German Shepherds, German Shepherd crosses, Siberian Huskies, Collies, Bernese Mountain Dog, Boxers, Chesapeake Bay Retrievers, Golden Retrievers, Kerry Blue Terriers, Miniature Poodles, Nova Scotia Duck Tolling Retrievers, Pembroke Welsh Corgis, Pugs, Rhodesian Ridgebacks, Standard Poodles, Welsh Corgis, Welsh Corgi Cardigans, Welsh Corgi Pembrokes, Wirehaired Fox Terriers

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Genetic Health Predispositions Tested Clear

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Cardiac (4)

Clear

Disorder	Gene	Copies
Cardiomyopathy, YARS2-related	YARS2	0 copies
Dilated cardiomyopathy, RBM20-related	RBM20	0 copies
Dilated cardiomyopathy, TTN-related	TTN	0 copies
Ventricular arrhythmias and sudden death	MICOS13	0 copies

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Genetic Health Predispositions Tested Clear

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Dermatologic (16)

Clear

Disorder	Gene	Copies
Dystrophic epidermolysis bullosa	COL7A1	0 copies
Dystrophic epidermolysis bullosa	COL7A1	0 copies
Epidermolysis bullosa simplex (EBS)	PLEC	0 copies
Hyperkeratosis, DSG1-related	DSG1	0 copies
Hyperkeratosis, FAM83G-related	FAM83G	0 copies
Hyperkeratosis, KRT10-related	KRT10	0 copies
Hypotrichosis	SGK3	0 copies
Ichthyosis, PNPLA1-related	PNPLA1	0 copies
Ichthyosis, SLC27A4-related	SLC27A4	0 copies
Inflammatory linear verrucous epidermal nevi (ILVEN)	NSDHL	0 copies
Inflammatory linear verrucous epidermal nevi (ILVEN)	NSDHL	0 copies
Junctional epidermolysis bullosa, LAMA3-related	LAMA3	0 copies
Junctional epidermolysis bullosa, LAMB3-related	LAMB3	0 copies
Lethal acrodermatitis	MKLN1	0 copies
Nasal parakeratosis	SUV39H2	0 copies
X-linked hypohidrotic ectodermal dysplasia (XHED)	EDA	0 copies

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Genetic Health Predispositions Tested Clear

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Endocrine (6)

Clear

Disorder	Gene	Copies
Congenital Hypothyroidism, SLC5A5-related	SLC5A5	0 copies
Congenital hypothyroidism, TPO-related	TPO	0 copies
Congenital hypothyroidism, TPO-related	TPO	0 copies
Disproportionate dwarfism	PRKG2	0 copies
Dwarfism, GH1-related	GH1	0 copies
Dwarfism, LHX3-related	LHX3	0 copies

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Genetic Health Predispositions Tested Clear

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Gastrointestinal (7)

Clear

Disorder	Gene	Copies
Familial Adenomatous Polyposis	APC	0 copies
Gastrointestinal stromal tumor predisposition	KIT	0 copies
Gastrointestinal stromal tumor predisposition	KIT	0 copies
Imerslund-Gräsbeck syndrome, CUBN-related	CUBN	0 copies
Imerslund-Gräsbeck syndrome, CUBN-related	CUBN	0 copies
Imerslund-Gräsbeck syndrome, CUBN-related	CUBN	0 copies
Lundehund syndrome	LEPREL1	0 copies

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Genetic Health Predispositions Tested Clear

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Hematologic (34)

Clear

Disorder	Gene	Copies
Bleeding disorder, P2RY12-related	P2RY12	0 copies
Canine Scott syndrome (CSS)	ANO6	0 copies
Elliptocytosis	SPTB	0 copies
Factor VII deficiency	F7	0 copies
Factor XI deficiency	F11	0 copies
Haemophilia A	F8	0 copies
Haemophilia A	F8	0 copies
Haemophilia A	F8	0 copies
Haemophilia A	F8	0 copies
Haemophilia A	F8	0 copies
Haemophilia B	F9	0 copies
Haemophilia B	F9	0 copies
Haemophilia B	F9	0 copies
Haemophilia B	F9	0 copies
Haemophilia B	F9	0 copies
Ligneous membranitis	PLG	0 copies
May-Hegglin anomaly	MYH9	0 copies
Methemoglobinaemia	CYB5R3	0 copies
Methemoglobinaemia	CYB5R3	0 copies
Polycythemia	JAK2	0 copies
Prekallikrein deficiency	KLKB1	0 copies
Thrombasthenia	ITGA2B	0 copies
Thrombasthenia	ITGA2B	0 copies
Thrombocytopaenia	TUBB1	0 copies
Thrombocytopaenia	TUBB1	0 copies
Thrombopathia	RASGRP2	0 copies
Thrombopathia	RASGRP2	0 copies

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Genetic Health Predispositions Tested Clear

Hematologic (34)

Clear

Disorder	Gene	Copies
Thrombopathia	RASGRP2	0 copies
Von Willebrand disease I	VWF	0 copies
Von Willebrand disease II	VWF	0 copies
Von Willebrand disease II	VWF	0 copies
Von Willebrand disease III	VWF	0 copies
Von Willebrand disease III	VWF	0 copies
Von Willebrand disease III	VWF	0 copies

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Genetic Health Predispositions Tested Clear

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Immune (9)

Clear

Disorder	Gene	Copies
C3 deficiency	C3	0 copies
Leukocyte adhesion deficiency, type I	ITGB2	0 copies
Leukocyte adhesion deficiency, type III	FERMT3	0 copies
Leukodystrophy, TSEN54-related	TSEN54	0 copies
Severe combined immunodeficiency disease, DNA-PKcs-related	PRKDC	0 copies
Severe combined immunodeficiency disease, RAG1-related	RAG1	0 copies
Severe combined immunodeficiency disease, X-linked	IL2RG	0 copies
Severe combined immunodeficiency disease, X-linked	IL2RG	0 copies
Trapped Neutrophil Syndrome	VPS13B	0 copies

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Genetic Health Predispositions Tested Clear

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Metabolic (44)

Clear

Disorder	Gene	Copies
Beta-mannosidosis	MANBA	0 copies
Ciliary dyskinesia, CCDC39-related	CCDC39	0 copies
Ciliary dyskinesia, NME5-related	NME5	0 copies
Erythrocytic pyruvate kinase (PK) deficiency	PKLR	0 copies
Erythrocytic pyruvate kinase (PK) deficiency	PKLR	0 copies
Erythrocytic pyruvate kinase (PK) deficiency	PKLR	0 copies
Erythrocytic pyruvate kinase (PK) deficiency	PKLR	0 copies
Erythrocytic pyruvate kinase (PK) deficiency	PKLR	0 copies
Exercise induced metabolic myopathy	ACADVL	0 copies
Gangliosidosis, GM1	GLB1	0 copies
Gangliosidosis, GM1	GLB1	0 copies
Gangliosidosis, GM1	GLB1	0 copies
Gangliosidosis, GM2, type I	HEXA	0 copies
Gangliosidosis, GM2, type II	HEXB	0 copies
Gangliosidosis, GM2, type II	HEXB	0 copies
Glycogen storage disease, type Ia	G6PC1	0 copies
Glycogen storage disease, type Ia	G6PC1	0 copies
Glycogen storage disease, type II	GAA	0 copies
Glycogen storage disease, type IIIA	AGL	0 copies
Glycogen storage disease, type VII	PFKM	0 copies
Glycogen storage disease, type VII	PFKM	0 copies
Hypocatalasia (Acatalasemia)	CAT	0 copies
Mucopolysaccharidosis IIIA	SGSH	0 copies
Mucopolysaccharidosis IIIA	SGSH	0 copies
Mucopolysaccharidosis VI	ARSB	0 copies
Mucopolysaccharidosis VII	GUSB	0 copies
Mucopolysaccharidosis VII	GUSB	0 copies

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Genetic Health Predispositions Tested Clear

Metabolic (44)

Clear

Disorder	Gene	Copies
Neuronal ceroid lipofuscinosis, ARSG-related	ARSG	0 copies
Neuronal ceroid lipofuscinosis, ATP13A2-related	ATP13A2	0 copies
Neuronal ceroid lipofuscinosis, CLN5-related	CLN5	0 copies
Neuronal ceroid lipofuscinosis, CLN5-related	CLN5	0 copies
Neuronal ceroid lipofuscinosis, CLN6-related	CLN6	0 copies
Neuronal ceroid lipofuscinosis, CLN8-related	CLN8	0 copies
Neuronal ceroid lipofuscinosis, CLN8-related	CLN8	0 copies
Neuronal ceroid lipofuscinosis, CTSD-related	CTSD	0 copies
Neuronal ceroid lipofuscinosis, MFSD8-related	MFSD8	0 copies
Neuronal ceroid lipofuscinosis, PPT1-related	PPT1	0 copies
Neuronal ceroid lipofuscinosis, TPP1-related	TPP1	0 copies
Pyruvate dehydrogenase deficiency	PDP1	0 copies
Succinic semialdehyde dehydrogenase deficiency	ALDH5A1	0 copies
Xanthinuria, type I	XDH	0 copies
Xanthinuria, type II	MOCOS	0 copies
Xanthinuria, type II	MOCOS	0 copies
Xanthinuria, type II	MOCOS	0 copies

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Genetic Health Predispositions Tested Clear

Musculoskeletal and connective tissue (39)

Clear

Disorder	Gene	Copies
Australian Labradoodle dystrophinopathy	DMD	0 copies
Centronuclear myopathy	HACD1	0 copies
Chondrodysplasia, FGF4-related	FGF4	0 copies
Chondrodysplasia, ITGA10-related	ITGA10	0 copies
Craniomandibular osteopathy	SLC37A2	0 copies
Craniomandibular osteopathy	SLC37A2	0 copies
Duchenne muscular dystrophy	DMD	0 copies
Duchenne muscular dystrophy	DMD	0 copies
Duchenne muscular dystrophy	DMD	0 copies
Ehlers-Danlos syndrome, classic type	COL5A1	0 copies
Ehlers-Danlos syndrome, classic type	COL5A1	0 copies
Ehlers-Danlos syndrome, classic-like type	TNXB	0 copies
Ehlers-Danlos syndrome, classic-like type	TNXB	0 copies
Ehlers-Danlos syndrome, Dermatosparaxis type	ADAMTS2	0 copies
Exercise-induced collapse syndrome (EIC)	DNM1	0 copies
Hypophosphatasia	ALPL	0 copies
Inflammatory myopathy	SLC25A12	0 copies
Inherited Myopathy of Great Danes (IMGD)	BIN1	0 copies
Limb-girdle muscular dystrophy, type 2F	SGCD	0 copies
Limb-girdle muscular dystrophy, type R3	SGCA	0 copies
Malignant hyperthermia	RYR1	0 copies
Muscular dystrophy-dystroglycanopathy	LARGE	0 copies
Muscular dystrophy, COL6A3-related	COL6A3	0 copies
Muscular dystrophy, COL6A3-related	COL6A3	0 copies
Muscular hypertrophy (double muscling)	MSTN	0 copies
Musladin-Lueke syndrome	ADAMTSL2	0 copies
Myotonia	CLCN1	0 copies

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Genetic Health Predispositions Tested Clear

Musculoskeletal and connective tissue (39)

Clear

Disorder	Gene	Copies
Myotonia	CLCN1	0 copies
Myotonia	CLCN1	0 copies
Myotubular myopathy	MTM1	0 copies
Myotubular myopathy	MTM1	0 copies
Oculoskeletal dysplasia, COL9A3-related	COL9A3	0 copies
Osteogenesis imperfecta, COL1A1-related	COL1A1	0 copies
Osteogenesis imperfecta, COL1A2-related	COL1A2	0 copies
Osteogenesis imperfecta, COL1A2-related	COL1A2	0 copies
Osteogenesis imperfecta, SERPINH1-related	SERPINH1	0 copies
Skeletal dysplasia 2 (SD2)	COL11A2	0 copies
Spondylocostal dysostosis	HES7	0 copies
Ullrich congenital muscular dystrophy (UCMD)	COL6A1	0 copies

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Genetic Health Predispositions Tested Clear

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Neurologic (44)

Clear

Disorder	Gene	Copies
Acral mutilation syndrome	GDNF	0 copies
Alexander disease	GFAP	0 copies
Bandera's neonatal ataxia (BNAt)	GRM1	0 copies
Benign familial juvenile epilepsy (BFJE)	LGI2	0 copies
Cerebellar ataxia, KCNIP4-related	KCNIP4	0 copies
Cerebellar ataxia, RAB24-related	RAB24	0 copies
Cerebellar ataxia, SEL1L-related	SEL1L	0 copies
Congenital myasthenic syndrome, CHAT-related	CHAT	0 copies
Congenital myasthenic syndrome, CHRNE-related	CHRNE	0 copies
Congenital myasthenic syndrome, CHRNE-related	CHRNE	0 copies
Congenital myasthenic syndrome, COLQ-related	COLQ	0 copies
Congenital myasthenic syndrome, COLQ-related	COLQ	0 copies
Dandy-Walker-like malformation (cerebellar hypoplasia)	VLDLR	0 copies
Generalized myoclonic epilepsy with photosensitivity	DIRAS1	0 copies
Hypomyelination	FNIP2	0 copies
Juvenile-onset neuroaxonal dystrophy, TECPR2-related	TECPR2	0 copies
Krabbe disease	GALC	0 copies
Krabbe disease	GALC	0 copies
L-2-hydroxyglutaricacidemia	L2HGDH	0 copies
L-2-hydroxyglutaricacidemia	L2HGDH	0 copies
Laryngeal paralysis and polyneuropathy	CNTNAP1	0 copies
Leigh-like subacute necrotizing encephalopathy (SNE)	SLC19A3	0 copies
Leukoencephalomyelopathy	NAPEPLD	0 copies
Mitochondrial neurodegenerative disease with epileptic encephalopathy	PITRM1	0 copies
Multiple system degeneration	SERAC1	0 copies
Narcolepsy	HCRTR2	0 copies
Neuroaxonal dystrophy, PLA2G6-related	PLA2G6	0 copies

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Neurologic (44)

Clear

Disorder	Gene	Copies
Neuroaxonal dystrophy, VPS11-related	VPS11	0 copies
Neurodegenerative vacuolar storage disease	ATG4D	0 copies
Neurological defects, MYO5A-related	MYO5A	0 copies
neuropathy, sensory, RETREG1(FAM134B)-related	FAM134B	0 copies
Pelizaeus-Merzbacker disease (shaking pup disease)	PLP1	0 copies
Polyneuropathy, ARHGEF10-related	ARHGEF10	0 copies
Polyneuropathy, GJA9-related	GJA9	0 copies
Polyneuropathy, NDRG1-related	NDRG1	0 copies
Polyneuropathy, NDRG1-related	NDRG1	0 copies
Polyneuropathy, RAB3GAP1-related	RAB3GAP1	0 copies
Polyneuropathy, SBF2-related	SBF2	0 copies
Spinocerebellar ataxia, CAPN1-related	CAPN1	0 copies
Spinocerebellar ataxia, KCNJ10-related	KCNJ10	0 copies
Spinocerebellar ataxia, SCN8A-related	SCN8A	0 copies
Spinocerebellar ataxia, SPTBN2-related	SPTBN2	0 copies
Spongy degeneration with cerebellar ataxia (SDCA)	ATP1B2	0 copies
Spongy degeneration with cerebellar ataxia 1 (SDCA1)	KCNJ10	0 copies

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Genetic Health Predispositions Tested Clear

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Ophthalmologic (38)

Clear

Disorder	Gene	Copies
Achromatopsia, CNGA3-related	CNGA3	0 copies
Achromatopsia, CNGA3-related	CNGA3	0 copies
Achromatopsia, CNGB3-related	CNGB3	0 copies
Cone-rod dystrophy 1 (crd1)	PDE6B	0 copies
Cone-rod dystrophy 2 (crd2)	IQCB1	0 copies
Cone-rod dystrophy 4 (crd4)	RPGRIP1	0 copies
Congenital eye malformation	SIX6	0 copies
Congenital keratoconjunctivitis sicca and ichthyosiform dermatosis (CKCSID)	FAM83H	0 copies
Congenital stationary night blindness	LRIT3	0 copies
Early retinal degeneration (erd)	STK38L	0 copies
Goniodysgenesis and early-onset glaucoma	OLFML3	0 copies
Leber congenital amaurosis	RPE65	0 copies
Lens luxation	ADAMTS17	0 copies
Multifocal retinopathy 1	BEST1	0 copies
Multifocal retinopathy 2	BEST1	0 copies
Multifocal retinopathy 3	BEST1	0 copies
Primary open-angle glaucoma (POAG), ADAMTS10-related	ADAMTS10	0 copies
Primary open-angle glaucoma (POAG), ADAMTS10-related	ADAMTS10	0 copies
Primary open-angle glaucoma (POAG), primary lens luxation (PLL), or both	ADAMTS17	0 copies
Progressive retinal atrophy, BBS4-related	BBS4	0 copies
Progressive retinal atrophy, CCDC66-related	CCDC66	0 copies
Progressive retinal atrophy, CCDC66-related	CCDC66	0 copies
Progressive retinal atrophy, CNGA1-related	CNGA1	0 copies
Progressive Retinal Atrophy, CNGB1-related	CNGB1	0 copies
Progressive Retinal Atrophy, HIVEP3-related	HIVEP3	0 copies
Progressive Retinal Atrophy, IFT122-related	IFT122	0 copies
Progressive Retinal Atrophy, NECAP1-related	NECAP1	0 copies

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Genetic Health Predispositions Tested Clear

Ophthalmologic (38)

Clear

Disorder	Gene	Copies
Progressive retinal atrophy, RHO-related	RHO	0 copies
Progressive Retinal Atrophy, SAG-related	SAG	0 copies
Progressive retinal atrophy, SLC4A3-related	SLC4A3	0 copies
Progressive retinal atrophy, TTC8-related	TTC8	0 copies
Progressive retinal atrophy, X-linked, type 1	RPGR	0 copies
Progressive retinal atrophy, X-linked, type 2	RPGR	0 copies
Progressive rod-cone degeneration	PRCD	0 copies
Rod-cone dysplasia 1 (rcd1), PDE6B-related	PDE6B	0 copies
Rod-cone dysplasia 3 (rcd3)	PDE6A	0 copies
Stargardt disease 1	ABCA4	0 copies
X-linked retinal dysplasia	NDP	0 copies

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Genetic Health Predispositions Tested Clear

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Other systems (9)

Clear

Disorder	Gene	Copies
Amelogenesis imperfecta, ENAM-related	ENAM	0 copies
Deafness, bilateral, and vestibular dysfunction	MYO7A	0 copies
Deafness, unilateral and vestibular dysfunction	PTPRQ	0 copies
Decreased litter size	GDF9	0 copies
Dental hypomineralization	FAM20C	0 copies
Disorder of sexual development, SRY-related	HSD17B3	0 copies
Non-syndromic hearing loss	LOXHD1	0 copies
Periodic Fever Syndrome	MTBP	0 copies
Persistent Müllerian duct syndrome	AMHR2	0 copies

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Rylee’s Honey Bear's Breed + Health Report

Genetic Health Predispositions Tested Clear

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Other Systems (1)

Clear

Disorder	Gene	Copies
Multiple drug sensitivity (MDR1)	ABCB1	0 copies

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Genetic Health Predispositions Tested Clear

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Renal/Urinary (15)

Clear

Disorder	Gene	Copies
2,8-DHA urolithiasis	APRT	0 copies
Cystinuria, type IA	SLC3A1	0 copies
Cystinuria, type IA	SLC3A1	0 copies
Cystinuria, type IIA	SLC3A1	0 copies
Cystinuria, type IIB	SLC7A9	0 copies
Diffuse cystic renal dysplasia and hepatic fibrosis	INPP5E	0 copies
Nephritis, X-linked	COL4A5	0 copies
Nephropathy	COL4A4	0 copies
Nephropathy	COL4A4	0 copies
Polycystic kidney disease	PKD1	0 copies
Primary hyperoxaluria, type I (Oxalosis I)	AGXT	0 copies
Protein-losing nephropathy	KIRREL2	0 copies
Protein-losing nephropathy	NPHS1	0 copies
Renal cystadenocarcinoma and nodular dermatofibrosis	FLCN	0 copies
Urolithiasis, SLC2A9-related	SLC2A9	0 copies

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Genetic Health Predispositions Tested Clear

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Respiratory (3)

Clear

Disorder	Gene	Copies
Pulmonary surfactant metabolism dysfunction	LAMP3	0 copies
Recurrent inflammatory pulmonary disease	AKNA	0 copies
Respiratory distress syndrome	ANLN	0 copies

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Physical Traits

Trait

Red/Yellow coat

Result

Likely to Have

Category

Coat Color

Gene	Identified Copies
MC1R	2 copies

Description

Melanocortin 1 Receptor (MC1R), also known as the Extension locus, is a gene that is responsible for producing eumelanin (black) and Phaeomelanin (red or yellow) pigments.There are six known variants of this gene.

Inheritance

Autosomal Recessive

Breeds Prevalence

Irish Setter, Labrador Retriever

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Physical Traits

Trait

Black coat, CBD103-related

Result

Likely to Have

Category

Coat Color

Gene	Identified Copies
CBD103	1 copy
CBD103	2 copies
CBD103	0 copies
CBD103	0 copies

Description

A mutation in Beta-defensin (CBD103) is unique to dogs and is responsible for dominant black coat color.

Inheritance

Complex

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Physical Traits

Trait

Long-haired coat

Result

Likely to Have

Category

Coat Properties

Gene	Identified Copies
FGF5	2 copies
FGF5	0 copies
FGF5	0 copies

Description

Variants in Fibroblast Growth Factor-5 (FGF-5) gene are responsible for longhair coats in dogs.

Inheritance

Autosomal Recessive

Breeds Prevalence

Yorkshire Terrier, Longhaired Whippet, Afghan Hound, Border Collie, Cocker Spaniel, Collie, Corgi, Dachshund, German Shepherd, Golden Retriever, Pomeranian, Samoyed, Eurasier, Akita

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Physical Traits

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Trait

Curly coat

Result

Likely to Have

Category

Coat Properties

Gene	Identified Copies
KRT71	1 copy

Description

A variant in Keratin-71 (KRT71) gene is responsible for curly or wavy coats in dogs. This trait is thought to most likely be inherited as an incomplete dominant trait.

Inheritance

Autosomal Incomplete Dominance

Breeds Prevalence

Poodle, Bichon Frise, Portugese Water Dog, Chesapeake Bay Retriever, Curly-Coated Retriever, Irish Terrier, Lagotto Romagnolo, Spanish Water Dog

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Physical Traits

Trait

Larger body size

Result

Likely to Have

Category

Morphology

Gene	Identified Copies
IGF1	2 copies

Description

Insulin-like growth factor 1 (IGF1) is a gene that controls a potent growth hormone. Mutations in this gene contribute to a range of body sizes in modern dogs.

Inheritance

Complex

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Physical Traits

Trait

Shedding

Result

Carrier

Category

Coat Properties

Gene	Identified Copies
MC5R	1 copy

Description

The SD locus, which is termed the shedding locus, is a mutation on the MC5R gene and is associated with higher levels of shedding.

Inheritance

Autosomal Incomplete Dominance

Breeds Prevalence

All breeds

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Other Physical Traits Tested

Coat (3)

Not Likely to Have

Disorder	Gene	Copies
Dilute coat	MLPH	0 copies
Dilute coat	MLPH	0 copies
Dilute coat	MLPH	0 copies

Coat Color (10)

Not Likely to Have

Disorder	Gene	Copies
Albinism, SLC45A2-related	SLC45A2	0 copies
Albinism, SLC45A2-related	SLC45A2	0 copies
Cream coat	MC1R	0 copies
White coat	MC1R	0 copies
Yellow coat	ASIP	0 copies
Yellow coat	ASIP	0 copies
Yellow coat	ASIP	1 copy
Yellow coat	ASIP	2 copies
Yellow coat	ASIP	0 copies
Yellow coat	ASIP	0 copies

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Other Physical Traits Tested

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Coat Color Modifier (10)

Not Likely to Have

Disorder	Gene	Copies
Brown coat	TYRP1	0 copies
Brown coat	TYRP1	0 copies
Brown coat	TYRP1	0 copies
Brown coat	TYRP1	0 copies
Brown coat	TYRP1	0 copies
Brown coat	TYRP1	0 copies
Dilute coat	MYO5A	0 copies
Dilute red coat	MFSD12	0 copies
White-spotted coat color, KIT-related	KIT	0 copies
White-spotted coat color, KIT-related	KIT	0 copies

Coat Pattern (7)

Not Likely to Have

Disorder	Gene	Copies
Himalayan coat	TYR	0 copies
Wolf-like (Sable) coat	ASIP	0 copies
Wolf-like (Sable) coat	ASIP	0 copies
Wolf-like (Sable) coat	ASIP	1 copy
Wolf-like (Sable) coat	ASIP	2 copies
Wolf-like (Sable) coat	ASIP	0 copies
Wolf-like (Sable) coat	ASIP	0 copies

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Other Physical Traits Tested

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Facial Pattern (3)

Not Likely to Have

Disorder	Gene	Copies
Grizzle	MC1R	0 copies
Grizzle	MC1R	0 copies
Melanistic Mask	MC1R	0 copies

Morphology (3)

Not Likely to Have

Disorder	Gene	Copies
Intermediate body size	IGF1	2 copies
Muzzle Length	BMP3	0 copies
Smaller body size	IGF1	2 copies

Tail (2)

Not Likely to Have

Disorder	Gene	Copies
Bobtail	TBXT	0 copies
Screw tail	DVL2	0 copies

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