

# CORA

## Veterinary Report by Embark

embarkvet.com

Test Date: April 2nd, 2022



### Customer-supplied information

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Owner Name: Charlene Petsch

Dog Name: Cora

Sex: Female

Date of birth: n/a

Breed type: N/A

Breed: Labrador Retriever

Breed registration: American Kennel Club (AKC)

Microchip: N/A

### Genetic summary

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Genetic breed identification:

**Labrador Retriever**

Breed ancestry:

 **Labrador Retriever: 100.0%**

Predicted adult weight: **52 lbs**

Calculated from 17 size genes.

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# Health Report

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## How to interpret Cora's genetic health results:

If Cora inherited any of the variants that we tested, they will be listed at the top of the Health Report section, along with a description of how to interpret this result. We also include all of the variants that we tested Cora for that we did not detect the risk variant for.

## A genetic test is not a diagnosis

This genetic test does not diagnose a disease. Please talk to your vet about your dog's genetic results, or if you think that your pet may have a health condition or disease.

## Summary

Cora is not at increased risk for the genetic health conditions that Embark tests.

### Clear results

**Breed-relevant** (19)

**Other** (223)



# Health Report

## BREED-RELEVANT RESULTS

Research studies indicate that these results are more relevant to dogs like Cora, and may influence her chances of developing certain health conditions.

✓ Alexander Disease (GFAP)	Clear
✓ Canine Elliptocytosis (SPTB Exon 30)	Clear
✓ Centronuclear Myopathy, CNM (PTPLA)	Clear
✓ Congenital Myasthenic Syndrome, CMS (COLQ, Labrador Retriever Variant)	Clear
✓ Day Blindness (CNGA3 Exon 7, Labrador Retriever Variant)	Clear
✓ Degenerative Myelopathy, DM (SOD1A)	Clear
✓ Exercise-Induced Collapse, EIC (DNM1)	Clear
✓ Golden Retriever Progressive Retinal Atrophy 2, GR-PRA2 (TTC8)	Clear
✓ Hereditary Nasal Parakeratosis, HNPk (SUV39H2)	Clear
✓ Macular Corneal Dystrophy, MCD (CHST6)	Clear
✓ Narcolepsy (HCRTR2 Intron 6, Labrador Retriever Variant)	Clear
✓ Progressive Retinal Atrophy, crd4/cord1 (RPGRIP1)	Clear
✓ Progressive Retinal Atrophy, prcd (PRCD Exon 1)	Clear
✓ Pyruvate Kinase Deficiency (PKLR Exon 7, Labrador Retriever Variant)	Clear
✓ Skeletal Dysplasia 2, SD2 (COL11A2, Labrador Retriever Variant)	Clear
✓ Stargardt Disease (ABCA4 Exon 28, Labrador Retriever Variant)	Clear
✓ Ullrich-like Congenital Muscular Dystrophy (COL6A3 Exon 10, Labrador Retriever Variant)	Clear





Urate Kidney & Bladder Stones (SLC2A9)


Clear



# Health Report

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## BREED-RELEVANT RESULTS

 X-Linked Myotubular Myopathy (MTM1, Labrador Retriever Variant)

Clear



# Health Report

## OTHER RESULTS

Research has not yet linked these conditions to dogs with similar breeds to Cora. Review any increased risk or notable results to understand her potential risk and recommendations.

✔ 2-DHA Kidney & Bladder Stones (APRT)	Clear
✔ Acral Mutilation Syndrome (GDNF-AS, Spaniel and Pointer Variant)	Clear
✔ Alaskan Husky Encephalopathy (SLC19A3)	Clear
✔ Alaskan Malamute Polyneuropathy, AMPN (NDRG1 SNP)	Clear
✔ ALT Activity (GPT)	Clear
✔ Anhidrotic Ectodermal Dysplasia (EDA Intron 8)	Clear
✔ Autosomal Dominant Progressive Retinal Atrophy (RHO)	Clear
✔ Bald Thigh Syndrome (IGFBP5)	Clear
✔ Bernard-Soulier Syndrome, BSS (GP9, Cocker Spaniel Variant)	Clear
✔ Bully Whippet Syndrome (MSTN)	Clear
✔ Canine Fucosidosis (FUCA1)	Clear
✔ Canine Leukocyte Adhesion Deficiency Type I, CLAD I (ITGB2, Setter Variant)	Clear
✔ Canine Leukocyte Adhesion Deficiency Type III, CLAD III (FERMT3, German Shepherd Variant)	Clear
✔ Canine Multifocal Retinopathy, cmr1 (BEST1 Exon 2)	Clear
✔ Canine Multifocal Retinopathy, cmr2 (BEST1 Exon 5, Coton de Tulear Variant)	Clear
✔ Canine Multifocal Retinopathy, cmr3 (BEST1 Exon 10 Deletion, Finnish and Swedish Lapphund, Lapponian Herder Variant)	Clear



Canine Multiple System Degeneration (SERAC1 Exon 4, Chinese Crested Variant)

Clear

Canine Multiple System Degeneration (SERAC1 Exon 15, Kerry Blue Terrier Variant)

Clear



# Health Report

## OTHER RESULTS

✓ Cardiomyopathy and Juvenile Mortality (YARS2)	Clear
✓ Cerebellar Hypoplasia (VLDLR, Eurasier Variant)	Clear
✓ Chondrodysplasia (ITGA10, Norwegian Elkhound and Karelian Bear Dog Variant)	Clear
✓ Cleft Lip and/or Cleft Palate (ADAMTS20, Nova Scotia Duck Tolling Retriever Variant)	Clear
✓ Cleft Palate, CP1 (DLX6 intron 2, Nova Scotia Duck Tolling Retriever Variant)	Clear
✓ Cobalamin Malabsorption (CUBN Exon 8, Beagle Variant)	Clear
✓ Cobalamin Malabsorption (CUBN Exon 53, Border Collie Variant)	Clear
✓ Collie Eye Anomaly (NHEJ1)	Clear
✓ Complement 3 Deficiency, C3 Deficiency (C3)	Clear
✓ Congenital Hypothyroidism (TPO, Rat, Toy, Hairless Terrier Variant)	Clear
✓ Congenital Hypothyroidism (TPO, Tenterfield Terrier Variant)	Clear
✓ Congenital Hypothyroidism with Goiter (SLC5A5, Shih Tzu Variant)	Clear
✓ Congenital Macrothrombocytopenia (TUBB1 Exon 1, Cairn and Norfolk Terrier Variant)	Clear
✓ Congenital Myasthenic Syndrome, CMS (COLQ, Golden Retriever Variant)	Clear
✓ Congenital Myasthenic Syndrome, CMS (CHAT, Old Danish Pointing Dog Variant)	Clear
✓ Congenital Myasthenic Syndrome, CMS (CHRNE, Jack Russell Terrier Variant)	Clear
✓ Congenital Stationary Night Blindness (LRIT3, Beagle Variant)	Clear
✓ Congenital Stationary Night Blindness (RPE65, Briard Variant)	Clear





# Health Report

## OTHER RESULTS

✓ Craniomandibular Osteopathy, CMO (SLC37A2)	Clear
✓ Cystinuria Type I-A (SLC3A1, Newfoundland Variant)	Clear
✓ Cystinuria Type II-A (SLC3A1, Australian Cattle Dog Variant)	Clear
✓ Cystinuria Type II-B (SLC7A9, Miniature Pinscher Variant)	Clear
✓ Day Blindness (CNGB3 Deletion, Alaskan Malamute Variant)	Clear
✓ Day Blindness (CNGA3 Exon 7, German Shepherd Variant)	Clear
✓ Day Blindness (CNGB3 Exon 6, German Shorthaired Pointer Variant)	Clear
✓ Deafness and Vestibular Syndrome of Dobermans, DVDob, DINGS (MYO7A)	Clear
✓ Demyelinating Polyneuropathy (SBF2/MTRM13)	Clear
✓ Diffuse Cystic Renal Dysplasia and Hepatic Fibrosis (INPP5E Intron 9, Norwich Terrier Variant)	Clear
✓ Dilated Cardiomyopathy, DCM (RBM20, Schnauzer Variant)	Clear
✓ Dilated Cardiomyopathy, DCM1 (PDK4, Doberman Pinscher Variant 1)	Clear
✓ Dilated Cardiomyopathy, DCM2 (TTN, Doberman Pinscher Variant 2)	Clear
✓ Dry Eye Curly Coat Syndrome (FAM83H Exon 5)	Clear
✓ Dystrophic Epidermolysis Bullosa (COL7A1, Central Asian Shepherd Dog Variant)	Clear
✓ Dystrophic Epidermolysis Bullosa (COL7A1, Golden Retriever Variant)	Clear
✓ Early Bilateral Deafness (LOXHD1 Exon 38, Rottweiler Variant)	Clear
✓ Early Onset Adult Deafness, EOAD (EPS8L2 Deletion, Rhodesian Ridgeback Variant)	Clear



# Health Report

## OTHER RESULTS

✓ Early Onset Cerebellar Ataxia (SEL1L, Finnish Hound Variant)	Clear
✓ Ehlers Danlos (ADAMTS2, Doberman Pinscher Variant)	Clear
✓ Enamel Hypoplasia (ENAM Deletion, Italian Greyhound Variant)	Clear
✓ Enamel Hypoplasia (ENAM SNP, Parson Russell Terrier Variant)	Clear
✓ Episodic Falling Syndrome (BCAN)	Clear
✓ Factor VII Deficiency (F7 Exon 5)	Clear
✓ Factor XI Deficiency (F11 Exon 7, Kerry Blue Terrier Variant)	Clear
✓ Familial Nephropathy (COL4A4 Exon 3, Cocker Spaniel Variant)	Clear
✓ Familial Nephropathy (COL4A4 Exon 30, English Springer Spaniel Variant)	Clear
✓ Fanconi Syndrome (FAN1, Basenji Variant)	Clear
✓ Fetal-Onset Neonatal Neuroaxonal Dystrophy (MFN2, Giant Schnauzer Variant)	Clear
✓ Glanzmann's Thrombasthenia Type I (ITGA2B Exon 13, Great Pyrenees Variant)	Clear
✓ Glanzmann's Thrombasthenia Type I (ITGA2B Exon 12, Otterhound Variant)	Clear
✓ Globoid Cell Leukodystrophy, Krabbe disease (GALC Exon 5, Terrier Variant)	Clear
✓ Glycogen Storage Disease Type IA, Von Gierke Disease, GSD IA (G6PC, Maltese Variant)	Clear
✓ Glycogen Storage Disease Type IIIA, GSD IIIA (AGL, Curly Coated Retriever Variant)	Clear
✓ Glycogen storage disease Type VII, Phosphofructokinase Deficiency, PFK Deficiency (PFKM, Whippet and English Springer Spaniel Variant)	Clear



✔ Glycogen storage disease Type VII, Phosphofruktokinase Deficiency, PFK Deficiency (PFKM, Wachtelhund Variant)

Clear



# Health Report

## OTHER RESULTS

✔ GM1 Gangliosidosis (GLB1 Exon 2, Portuguese Water Dog Variant)	Clear
✔ GM1 Gangliosidosis (GLB1 Exon 15, Shiba Inu Variant)	Clear
✔ GM1 Gangliosidosis (GLB1 Exon 15, Alaskan Husky Variant)	Clear
✔ GM2 Gangliosidosis (HEXA, Japanese Chin Variant)	Clear
✔ GM2 Gangliosidosis (HEXB, Poodle Variant)	Clear
✔ Golden Retriever Progressive Retinal Atrophy 1, GR-PRA1 (SLC4A3)	Clear
✔ Goniodysgenesis and Glaucoma, Pectinate Ligament Dysplasia, PLD (OLFM3)	Clear
✔ Hemophilia A (F8 Exon 11, German Shepherd Variant 1)	Clear
✔ Hemophilia A (F8 Exon 1, German Shepherd Variant 2)	Clear
✔ Hemophilia A (F8 Exon 10, Boxer Variant)	Clear
✔ Hemophilia B (F9 Exon 7, Terrier Variant)	Clear
✔ Hemophilia B (F9 Exon 7, Rhodesian Ridgeback Variant)	Clear
✔ Hereditary Ataxia, Cerebellar Degeneration (RAB24, Old English Sheepdog and Gordon Setter Variant)	Clear
✔ Hereditary Cataracts (HSF4 Exon 9, Australian Shepherd Variant)	Clear
✔ Hereditary Footpad Hyperkeratosis (FAM83G, Terrier and Kromfohrlander Variant)	Clear
✔ Hereditary Footpad Hyperkeratosis (DSG1, Rottweiler Variant)	Clear
✔ Hereditary Nasal Parakeratosis (SUV39H2 Intron 4, Greyhound Variant)	Clear
✔ Hereditary Vitamin D-Resistant Rickets (VDR)	Clear



# Health Report

## OTHER RESULTS

✓ Hypocatalasia, Acatlasemia (CAT)	Clear
✓ Hypomyelination and Tremors (FNIP2, Weimaraner Variant)	Clear
✓ Hypophosphatasia (ALPL Exon 9, Karelian Bear Dog Variant)	Clear
✓ Ichthyosis (NIPAL4, American Bulldog Variant)	Clear
✓ Ichthyosis (SLC27A4, Great Dane Variant)	Clear
✓ Ichthyosis, Epidermolytic Hyperkeratosis (KRT10, Terrier Variant)	Clear
✓ Ichthyosis, ICH1 (PNPLA1, Golden Retriever Variant)	Clear
✓ Inflammatory Myopathy (SLC25A12)	Clear
✓ Inherited Myopathy of Great Danes (BIN1)	Clear
✓ Inherited Selected Cobalamin Malabsorption with Proteinuria (CUBN, Komondor Variant)	Clear
✓ Intervertebral Disc Disease (Type I) (FGF4 retrogene - CFA12)	Clear
✓ Junctional Epidermolysis Bullosa (LAMA3 Exon 66, Australian Cattle Dog Variant)	Clear
✓ Junctional Epidermolysis Bullosa (LAMB3 Exon 11, Australian Shepherd Variant)	Clear
✓ Juvenile Epilepsy (LG12)	Clear
✓ Juvenile Laryngeal Paralysis and Polyneuropathy (RAB3GAP1, Rottweiler Variant)	Clear
✓ Juvenile Myoclonic Epilepsy (DIRAS1)	Clear
✓ L-2-Hydroxyglutaricaciduria, L2HGA (L2HGDH, Staffordshire Bull Terrier Variant)	Clear
✓ Lagotto Storage Disease (ATG4D)	Clear



# Health Report

## OTHER RESULTS

✓ Laryngeal Paralysis (RAPGEF6, Miniature Bull Terrier Variant)	Clear
✓ Late Onset Spinocerebellar Ataxia (CAPN1)	Clear
✓ Late-Onset Neuronal Ceroid Lipofuscinosis, NCL 12 (ATP13A2, Australian Cattle Dog Variant)	Clear
✓ Leonberger Polyneuropathy 1 (LPN1, ARHGEF10)	Clear
✓ Leonberger Polyneuropathy 2 (GJA9)	Clear
✓ Lethal Acrodermatitis, LAD (MKLN1)	Clear
✓ Ligneous Membranitis, LM (PLG)	Clear
✓ Limb Girdle Muscular Dystrophy (SGCD, Boston Terrier Variant)	Clear
✓ Limb-Girdle Muscular Dystrophy 2D (SGCA Exon 3, Miniature Dachshund Variant)	Clear
✓ Long QT Syndrome (KCNQ1)	Clear
✓ Lundehund Syndrome (LEPREL1)	Clear
✓ Malignant Hyperthermia (RYR1)	Clear
✓ May-Hegglin Anomaly (MYH9)	Clear
✓ Methemoglobinemia (CYB5R3)	Clear
✓ Microphthalmia (RBP4 Exon 2, Soft Coated Wheaten Terrier Variant)	Clear
✓ Mucopolysaccharidosis IIIB, Sanfilippo Syndrome Type B, MPS IIIB (NAGLU, Schipperke Variant)	Clear
✓ Mucopolysaccharidosis Type IIIA, Sanfilippo Syndrome Type A, MPS IIIA (SGSH Exon 6, Dachshund Variant)	Clear
✓ Mucopolysaccharidosis Type IIIA, Sanfilippo Syndrome Type A, MPS IIIA (SGSH Exon 6, New Zealand Huntaway Variant)	Clear



# Health Report

## OTHER RESULTS

✔ Mucopolysaccharidosis Type VI, Maroteaux-Lamy Syndrome, MPS VI (ARSB Exon 5, Miniature Pinscher Variant)	Clear
✔ Mucopolysaccharidosis Type VII, Sly Syndrome, MPS VII (GUSB Exon 3, German Shepherd Variant)	Clear
✔ Mucopolysaccharidosis Type VII, Sly Syndrome, MPS VII (GUSB Exon 5, Terrier Brasileiro Variant)	Clear
✔ Multiple Drug Sensitivity (ABCB1)	Clear
✔ Muscular Dystrophy (DMD, Cavalier King Charles Spaniel Variant 1)	Clear
✔ Muscular Dystrophy (DMD, Golden Retriever Variant)	Clear
✔ Musladin-Lueke Syndrome, MLS (ADAMTSL2)	Clear
✔ Myasthenia Gravis-Like Syndrome (CHRNE, Heideterrier Variant)	Clear
✔ Myotonia Congenita (CLCN1 Exon 23, Australian Cattle Dog Variant)	Clear
✔ Myotonia Congenita (CLCN1 Exon 7, Miniature Schnauzer Variant)	Clear
✔ Narcolepsy (HCRTR2 Exon 1, Dachshund Variant)	Clear
✔ Narcolepsy (HCRTR2 Intron 4, Doberman Pinscher Variant)	Clear
✔ Nemaline Myopathy (NEB, American Bulldog Variant)	Clear
✔ Neonatal Cerebellar Cortical Degeneration (SPTBN2, Beagle Variant)	Clear
✔ Neonatal Encephalopathy with Seizures, NEWS (ATF2)	Clear
✔ Neonatal Interstitial Lung Disease (LAMP3)	Clear
✔ Neuroaxonal Dystrophy, NAD (VPS11, Rottweiler Variant)	Clear
✔ Neuroaxonal Dystrophy, NAD (TECPR2, Spanish Water Dog Variant)	Clear



# Health Report

## OTHER RESULTS

✔ Neuronal Ceroid Lipofuscinosis 1, NCL 1 (PPT1 Exon 8, Dachshund Variant 1)	Clear
✔ Neuronal Ceroid Lipofuscinosis 10, NCL 10 (CTSD Exon 5, American Bulldog Variant)	Clear
✔ Neuronal Ceroid Lipofuscinosis 2, NCL 2 (TPP1 Exon 4, Dachshund Variant 2)	Clear
✔ Neuronal Ceroid Lipofuscinosis 5, NCL 5 (CLN5 Exon 4 SNP, Border Collie Variant)	Clear
✔ Neuronal Ceroid Lipofuscinosis 5, NCL 5 (CLN5 Exon 4 Deletion, Golden Retriever Variant)	Clear
✔ Neuronal Ceroid Lipofuscinosis 6, NCL 6 (CLN6 Exon 7, Australian Shepherd Variant)	Clear
✔ Neuronal Ceroid Lipofuscinosis 7, NCL 7 (MFSD8, Chihuahua and Chinese Crested Variant)	Clear
✔ Neuronal Ceroid Lipofuscinosis 8, NCL 8 (CLN8, Australian Shepherd Variant)	Clear
✔ Neuronal Ceroid Lipofuscinosis 8, NCL 8 (CLN8 Exon 2, English Setter Variant)	Clear
✔ Neuronal Ceroid Lipofuscinosis 8, NCL 8 (CLN8 Insertion, Saluki Variant)	Clear
✔ Neuronal Ceroid Lipofuscinosis, Cerebellar Ataxia, NCL4A (ARSG Exon 2, American Staffordshire Terrier Variant)	Clear
✔ Oculocutaneous Albinism, OCA (SLC45A2, Small Breed Variant)	Clear
✔ Oculoskeletal Dysplasia 2 (COL9A2, Samoyed Variant)	Clear
✔ Osteochondrodysplasia (SLC13A1, Poodle Variant)	Clear
✔ Osteogenesis Imperfecta (COL1A2, Beagle Variant)	Clear
✔ Osteogenesis Imperfecta (SERPINH1, Dachshund Variant)	Clear
✔ Osteogenesis Imperfecta (COL1A1, Golden Retriever Variant)	Clear
✔ P2Y12 Receptor Platelet Disorder (P2Y12)	Clear





# Health Report

## OTHER RESULTS

✓ Pachyonychia Congenita (KRT16, Dogue de Bordeaux Variant)	Clear
✓ Paroxysmal Dyskinesia, PxD (PIGN)	Clear
✓ Persistent Mullerian Duct Syndrome, PMDS (AMHR2)	Clear
✓ Pituitary Dwarfism (POU1F1 Intron 4, Karelian Bear Dog Variant)	Clear
✓ Platelet Factor X Receptor Deficiency, Scott Syndrome (TMEM16F)	Clear
✓ Polycystic Kidney Disease, PKD (PKD1)	Clear
✓ Pompe's Disease (GAA, Finnish and Swedish Lapphund, Lapponian Herder Variant)	Clear
✓ Prekallikrein Deficiency (KLKB1 Exon 8)	Clear
✓ Primary Ciliary Dyskinesia, PCD (NME5, Alaskan Malamute Variant)	Clear
✓ Primary Ciliary Dyskinesia, PCD (CCDC39 Exon 3, Old English Sheepdog Variant)	Clear
✓ Primary Hyperoxaluria (AGXT)	Clear
✓ Primary Lens Luxation (ADAMTS17)	Clear
✓ Primary Open Angle Glaucoma (ADAMTS17 Exon 11, Basset Fauve de Bretagne Variant)	Clear
✓ Primary Open Angle Glaucoma (ADAMTS10 Exon 17, Beagle Variant)	Clear
✓ Primary Open Angle Glaucoma (ADAMTS10 Exon 9, Norwegian Elkhound Variant)	Clear
✓ Primary Open Angle Glaucoma and Primary Lens Luxation (ADAMTS17 Exon 2, Chinese Shar-Pei Variant)	Clear
✓ Progressive Retinal Atrophy (SAG)	Clear
✓ Progressive Retinal Atrophy (IFT122 Exon 26, Lapponian Herder Variant)	Clear



# Health Report

## OTHER RESULTS

✔ Progressive Retinal Atrophy, Bardet-Biedl Syndrome (BBS2 Exon 11, Shetland Sheepdog Variant)	Clear
✔ Progressive Retinal Atrophy, CNGA (CNGA1 Exon 9)	Clear
✔ Progressive Retinal Atrophy, crd1 (PDE6B, American Staffordshire Terrier Variant)	Clear
✔ Progressive Retinal Atrophy, PRA1 (CNGB1)	Clear
✔ Progressive Retinal Atrophy, PRA3 (FAM161A)	Clear
✔ Progressive Retinal Atrophy, rcd1 (PDE6B Exon 21, Irish Setter Variant)	Clear
✔ Progressive Retinal Atrophy, rcd3 (PDE6A)	Clear
✔ Proportionate Dwarfism (GH1 Exon 5, Chihuahua Variant)	Clear
✔ Protein Losing Nephropathy, PLN (NPHS1)	Clear
✔ Pyruvate Dehydrogenase Deficiency (PDP1, Spaniel Variant)	Clear
✔ Pyruvate Kinase Deficiency (PKLR Exon 5, Basenji Variant)	Clear
✔ Pyruvate Kinase Deficiency (PKLR Exon 7, Beagle Variant)	Clear
✔ Pyruvate Kinase Deficiency (PKLR Exon 10, Terrier Variant)	Clear
✔ Pyruvate Kinase Deficiency (PKLR Exon 7, Pug Variant)	Clear
✔ Raine Syndrome (FAM20C)	Clear
✔ Recurrent Inflammatory Pulmonary Disease, RIPD (AKNA, Rough Collie Variant)	Clear
✔ Renal Cystadenocarcinoma and Nodular Dermatofibrosis (FLCN Exon 7)	Clear
✔ Sensory Neuropathy (FAM134B, Border Collie Variant)	Clear



# Health Report

## OTHER RESULTS

✔ Severe Combined Immunodeficiency, SCID (PRKDC, Terrier Variant)	Clear
✔ Severe Combined Immunodeficiency, SCID (RAG1, Wetterhoun Variant)	Clear
✔ Shaking Puppy Syndrome (PLP1, English Springer Spaniel Variant)	Clear
✔ Shar-Pei Autoinflammatory Disease, SPAID, Shar-Pei Fever (MTBP)	Clear
✔ Skin Fragility Syndrome (PKP1, Chesapeake Bay Retriever Variant)	Clear
✔ Spinocerebellar Ataxia with Myokymia and/or Seizures (KCNJ10)	Clear
✔ Spongy Degeneration with Cerebellar Ataxia 1 (KCNJ10)	Clear
✔ Spongy Degeneration with Cerebellar Ataxia 2 (ATP1B2)	Clear
✔ Succinic Semialdehyde Dehydrogenase Deficiency (ALDH5A1 Exon 7, Saluki Variant)	Clear
✔ Thrombopathia (RASGRP1 Exon 5, American Eskimo Dog Variant)	Clear
✔ Thrombopathia (RASGRP1 Exon 5, Basset Hound Variant)	Clear
✔ Thrombopathia (RASGRP1 Exon 8, Landseer Variant)	Clear
✔ Trapped Neutrophil Syndrome, TNS (VPS13B)	Clear
✔ Ullrich-like Congenital Muscular Dystrophy (COL6A1 Exon 3, Landseer Variant)	Clear
✔ Unilateral Deafness and Vestibular Syndrome (PTPRQ Exon 39, Doberman Pinscher)	Clear
✔ Von Willebrand Disease Type I, Type I vWD (VWF)	Clear
✔ Von Willebrand Disease Type II, Type II vWD (VWF, Pointer Variant)	Clear
✔ Von Willebrand Disease Type III, Type III vWD (VWF Exon 4, Terrier Variant)	Clear



# Health Report

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## OTHER RESULTS

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|--|-------|
| <input checked="" type="checkbox"/> Von Willebrand Disease Type III, Type III vWD (VWF Intron 16, Nederlandse Kooikerhondje Variant) | Clear |
| <input checked="" type="checkbox"/> Von Willebrand Disease Type III, Type III vWD (VWF Exon 7, Shetland Sheepdog Variant)            | Clear |
| <input checked="" type="checkbox"/> X-Linked Hereditary Nephropathy, XLHN (COL4A5 Exon 35, Samoyed Variant 2)                        | Clear |
| <input checked="" type="checkbox"/> X-Linked Progressive Retinal Atrophy 1, XL-PRA1 (RPGR)   | Clear |
| <input checked="" type="checkbox"/> X-linked Severe Combined Immunodeficiency, X-SCID (IL2RG Exon 1, Basset Hound Variant)           | Clear |
| <input checked="" type="checkbox"/> X-linked Severe Combined Immunodeficiency, X-SCID (IL2RG, Corgi Variant)                         | Clear |
| <input checked="" type="checkbox"/> $\beta$ -Mannosidosis (MANBA Exon 16, Mixed-Breed Variant)                                       | Clear |



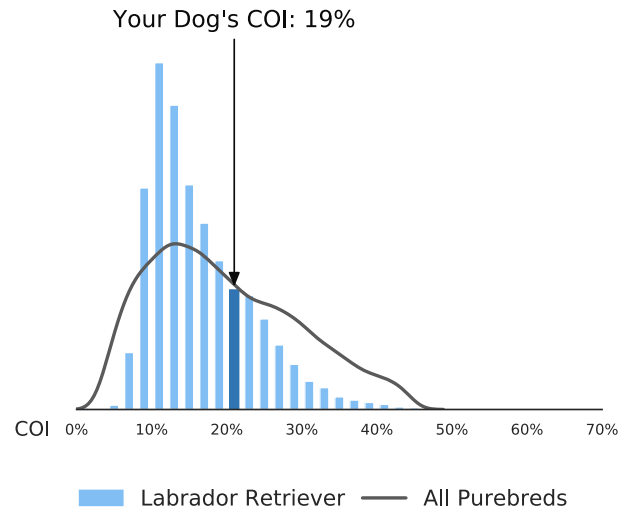
# Genetic Diversity and Inbreeding

## Coefficient of Inbreeding (COI)

**Genetic Result: 19%**

Our genetic COI measures the proportion of your dog's genome (her genes) where the genes on the mother's side are identical by descent to those on the father's side. The higher your dog's coefficient of inbreeding (the percentage), the more inbred your dog is.

## Your Dog's COI



This graph represents where your dog's inbreeding levels fall on a scale compared to both dogs with a similar breed makeup to her (the blue bars) and all purebred dogs (the grey line).

# Genetic Diversity and Inbreeding

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## More on the Science

Embark scientists, along with our research partners at Cornell University, have shown the impact of inbreeding on longevity and fertility and developed a state-of-the-art, peer-reviewed method for accurately measuring COI and predicting average COI in litters.

### Citations

Sams & Boyko 2019 "Fine-Scale Resolution of Runs of Homozygosity Reveal Patterns of Inbreeding and Substantial Overlap with Recessive Disease Genotypes in Domestic Dogs" (<https://www.ncbi.nlm.nih.gov/pubmed/30429214>)

Chu et al 2019 "Inbreeding depression causes reduced fecundity in Golden Retrievers" (<https://link.springer.com/article/10.1007/s00335-019-09805-4>)

Yordy et al 2019 "Body size, inbreeding, and lifespan in domestic dogs" (<https://www.semanticscholar.org/paper/Body-size%2C-inbreeding%2C-and-lifespan-in-domestic-Yordy-Kraus/61d0fa7a71afb26f547f0fb7ff71e23a14d19d2c>)



# About Embark

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Embark Veterinary is a canine genetics company offering research-grade genetic tests to pet owners and breeders. Every Embark test examines thousands of genetic markers, and provides results for over NaN genetic health conditions, breed identification, clinical tools, and more.

Embark is a research partner of the Cornell University College of Veterinary Medicine and collaborates with scientists and registries to accelerate genetic research in canine health. We make it easy for customers and vets to understand, share and make use of their dog's unique genetic profile to improve canine health and happiness.

Learn more at [embarkvet.com](http://embarkvet.com)

Veterinarians and hospitals can send inquiries to [veterinarians@embarkvet.com](mailto:veterinarians@embarkvet.com).

