
SCHLABACH'S WINCHESTER

Veterinary Report by Embark

embarkvet.com

Test Date: August 6th, 2024

Customer-supplied information

Owner Name: Diane Caudill

Dog Name: Schlabach's Winchester

Sex: Female

Date of birth: n/a

Breed type: purebred

Breed: Golden Retriever

Breed registration: N/A

Microchip: N/A

Genetic summary

Genetic breed identification:

Golden Retriever

Predicted adult weight: **56 lbs**

Calculated from 17 size genes.

Breed mix:



Golden Retriever: 100.0%

Health Report

How to interpret Schlabach's Winchester's genetic health results:

If Schlabach's Winchester 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 Schlabach's Winchester 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

Of the 274 genetic health risks we analyzed, we found 4 results that you should learn about.

Increased risk results (1)

Ichthyosis, ICH1

Notable results (3)

Copper Toxicosis (Attenuating)

Copper Toxicosis (Attenuating)

Progressive Retinal Atrophy, prcd

Clear results

Breed-relevant (10)

Other (259)

Health Report

BREED-RELEVANT RESULTS

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

	Ichthyosis, ICH1 (PNPLA1, Golden Retriever Variant)	Increased risk
	Progressive Retinal Atrophy, prcd (PRCD Exon 1)	Notable
	Congenital Myasthenic Syndrome, CMS (COLQ, Golden Retriever Variant)	Clear
	Degenerative Myelopathy, DM (SOD1A)	Clear
	Dystrophic Epidermolysis Bullosa (COL7A1, Golden Retriever Variant)	Clear
	Golden Retriever Progressive Retinal Atrophy 1, GR-PRA1 (SLC4A3)	Clear
	Golden Retriever Progressive Retinal Atrophy 2, GR-PRA2 (TTC8)	Clear
	Ichthyosis, ICH2 (ABHD5, Golden Retriever Variant)	Clear
	Muscular Dystrophy (DMD, Golden Retriever Variant)	Clear
	Neuronal Ceroid Lipofuscinosis 5, NCL 5 (CLN5 Exon 4 Deletion, Golden Retriever Variant)	Clear
	Osteogenesis Imperfecta (COL1A1, Golden Retriever Variant)	Clear
	Retina Dysplasia and/or Optic Nerve Hypoplasia (SIX6 Exon 1, Golden Retriever Variant)	Clear

Health Report

OTHER RESULTS

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

	Copper Toxicosis (Attenuating) (ATP7A, Labrador Retriever)	Notable
	Copper Toxicosis (Attenuating) (RETN, Labrador Retriever)	Notable
	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
	Alexander Disease (GFAP)	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 Elliptocytosis (SPTB Exon 30)	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

Health Report

OTHER RESULTS

✓ 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
✓ Cardiomyopathy and Juvenile Mortality (YARS2)	Clear
✓ Centronuclear Myopathy, CNM (PTPLA)	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 Cornification Disorder (NSDHL, Chihuahua Variant)	Clear
✓ Congenital Dyserythropoietic Anemia and Polymyopathy (EHPB1L1, Labrador Retriever Variant)	Clear
✓ Congenital Hypothyroidism (TPO, Rat, Toy, Hairless Terrier Variant)	Clear
✓ Congenital Hypothyroidism (TPO, Tenterfield Terrier Variant)	Clear

Health Report

OTHER RESULTS

✓	Congenital Hypothyroidism with Goiter (TPO Intron 13, French Bulldog Variant)	Clear
✓	Congenital Hypothyroidism with Goiter (SLC5A5, Shih Tzu Variant)	Clear
✓	Congenital Macrothrombocytopenia (TUBB1 Exon 1, Cairn and Norfolk Terrier Variant)	Clear
✓	Congenital Muscular Dystrophy (LAMA2, Italian Greyhound)	Clear
✓	Congenital Myasthenic Syndrome, CMS (COLQ, Labrador 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
✓	Copper Toxicosis (Accumulating) (ATP7B)	Clear
✓	Craniomandibular Osteopathy, CMO (SLC37A2)	Clear
✓	Craniomandibular Osteopathy, CMO (SLC37A2 Intron 16, Basset Hound Variant)	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
✓	Darier Disease (ATP2A2, Irish Terrier Variant)	Clear
✓	Day Blindness (CNGB3 Deletion, Alaskan Malamute Variant)	Clear
✓	Day Blindness (CNGA3 Exon 7, German Shepherd Variant)	Clear

Health Report

OTHER RESULTS

	Day Blindness (CNGA3 Exon 7, Labrador Retriever 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
	Dental-Skeletal-Retinal Anomaly (MIA3, Cane Corso Variant)	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
	Disproportionate Dwarfism (PRKG2, Dogo Argentino Variant)	Clear
	Dry Eye Curly Coat Syndrome (FAM83H Exon 5)	Clear
	Dystrophic Epidermolysis Bullosa (COL7A1, Central Asian Shepherd Dog Variant)	Clear
	Early Bilateral Deafness (LOXHD1 Exon 38, Rottweiler Variant)	Clear
	Early Onset Adult Deafness, EOAD (EPS8L2 Deletion, Rhodesian Ridgeback Variant)	Clear
	Early Onset Cerebellar Ataxia (SEL1L, Finnish Hound Variant)	Clear
	Ehlers Danlos (ADAMTS2, Doberman Pinscher Variant)	Clear
	Ehlers-Danlos Syndrome (EDS) (COL5A1, Labrador Retriever Variant)	Clear
	Enamel Hypoplasia (ENAM Deletion, Italian Greyhound Variant)	Clear

Health Report

OTHER RESULTS

✓ Enamel Hypoplasia (ENAM SNP, Parson Russell Terrier Variant)	Clear
✓ Episodic Falling Syndrome (BCAN)	Clear
✓ Exercise-Induced Collapse, EIC (DNM1)	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 (G6PC1, German Pinscher 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, Phosphofructokinase Deficiency, PFK Deficiency (PFKM, Wachtelhund Variant)	Clear
✓ GM1 Gangliosidosis (GLB1 Exon 2, Portuguese Water Dog Variant)	Clear

Health Report

OTHER RESULTS

✓ 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
✓ 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 (PNPLA8, Australian Shepherd 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 Cataracts (FYCO1, Wirehaired Pointing Griffon Variant)	Clear
✓ Hereditary Cerebellar Ataxia (SELENOP, Belgian 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

Health Report

OTHER RESULTS

✓ Hereditary Nasal Parakeratosis, HNPK (SUV39H2)	Clear
✓ Hereditary Vitamin D-Resistant Rickets (VDR)	Clear
✓ Hypocatalasia, Acatalasemia (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 (ASPRV1 Exon 2, German Shepherd Variant)	Clear
✓ Ichthyosis (SLC27A4, Great Dane Variant)	Clear
✓ Ichthyosis, Epidermolytic Hyperkeratosis (KRT10, Terrier 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
✓ Intestinal Lipid Malabsorption (ACSL5, Australian Kelpie)	Clear
✓ Junctional Epidermolysis Bullosa (LAMA3 Exon 66, Australian Cattle Dog Variant)	Clear
✓ Junctional Epidermolysis Bullosa (LAMB3 Exon 11, Australian Shepherd Variant)	Clear
✓ Juvenile Epilepsy (LGI2)	Clear
✓ Juvenile Laryngeal Paralysis and Polyneuropathy (RAB3GAP1, Rottweiler Variant)	Clear

Health Report

OTHER RESULTS

✓ Juvenile Myoclonic Epilepsy (DIRAS1)	Clear
✓ L-2-Hydroxyglutaricaciduria, L2HGA (L2HGDH, Staffordshire Bull Terrier Variant)	Clear
✓ Lagotto Storage Disease (ATG4D)	Clear
✓ Laryngeal Paralysis (RAPGEF6, Miniature Bull Terrier Variant)	Clear
✓ Laryngeal Paralysis and Polyneuropathy (CNTNAP1, Leonberger, Saint Bernard, and Labrador Retriever 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
✓ Leukodystrophy (TSEN54 Exon 5, Standard Schnauzer Variant)	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
✓ Macular Corneal Dystrophy, MCD (CHST6)	Clear
✓ Malignant Hyperthermia (RYR1)	Clear

Health Report

OTHER RESULTS

✓ May-Hegglin Anomaly (MYH9)	Clear
✓ Medium-Chain Acyl-CoA Dehydrogenase Deficiency, MCADD (ACADM, Cavalier King Charles Spaniel Variant)	Clear
✓ Methemoglobinemia (CYB5R3, Pit Bull Terrier Variant)	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
✓ 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-Dystroglycanopathy (LARGE1, Labrador 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 19, Labrador Retriever Variant)	Clear

Health Report

OTHER RESULTS

	Myotonia Congenita (CLCN1 Exon 7, Miniature Schnauzer Variant)	Clear
	Narcolepsy (HCRT2 Exon 1, Dachshund Variant)	Clear
	Narcolepsy (HCRT2 Intron 4, Doberman Pinscher Variant)	Clear
	Narcolepsy (HCRT2 Intron 6, Labrador Retriever 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
	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 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

Health Report

OTHER RESULTS

	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 Exon 6, Bullmastiff 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
	P2Y12 Receptor Platelet Disorder (P2Y12)	Clear
	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

Health Report

OTHER RESULTS

✓ Primary Ciliary Dyskinesia, PCD (STK36, Australian Shepherd 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
✓ Progressive Retinal Atrophy 5, PRA5 (NECAP1 Exon 6, Giant Schnauzer Variant)	Clear
✓ 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, crd4/cord1 (RPGRIP1)	Clear
✓ Progressive Retinal Atrophy, PRA1 (CNGB1)	Clear
✓ Progressive Retinal Atrophy, PRA3 (FAM161A)	Clear
✓ Progressive Retinal Atrophy, rcd1 (PDE6B Exon 21, Irish Setter Variant)	Clear

Health Report

OTHER RESULTS

✓ 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, Labrador Retriever 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
✓ 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
✓ Skeletal Dysplasia 2, SD2 (COL11A2, Labrador Retriever Variant)	Clear

Health Report

OTHER RESULTS

✓ Skin Fragility Syndrome (PKP1, Chesapeake Bay Retriever Variant)	Clear
✓ Spinocerebellar Ataxia (SCN8A, Alpine Dachsbracke 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
✓ Stargardt Disease (ABCA4 Exon 28, Labrador Retriever Variant)	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 (COL6A3 Exon 10, Labrador Retriever Variant)	Clear
✓ Ullrich-like Congenital Muscular Dystrophy (COL6A1 Exon 3, Landseer Variant)	Clear
✓ Unilateral Deafness and Vestibular Syndrome (PTPRQ Exon 39, Doberman Pinscher)	Clear
✓ Urate Kidney & Bladder Stones (SLC2A9)	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

OTHER RESULTS

	Von Willebrand Disease Type III, Type III vWD (VWF Intron 16, Nederlandse Kooikerhondje Variant)	Clear
	Von Willebrand Disease Type III, Type III vWD (VWF Exon 7, Shetland Sheepdog Variant)	Clear
	X-Linked Hereditary Nephropathy, XLHN (COL4A5 Exon 35, Samoyed Variant 2)	Clear
	X-Linked Myotubular Myopathy (MTM1, Labrador Retriever Variant)	Clear
	X-Linked Progressive Retinal Atrophy 1, XL-PRA1 (RPGR)	Clear
	X-linked Severe Combined Immunodeficiency, X-SCID (IL2RG Exon 1, Basset Hound Variant)	Clear
	X-linked Severe Combined Immunodeficiency, X-SCID (IL2RG, Corgi Variant)	Clear
	Xanthine Urolithiasis (XDH, Mixed Breed Variant)	Clear
	β-Mannosidosis (MANBA Exon 16, Mixed-Breed Variant)	Clear
Mast Cell Tumor		No result

Health Report

HEALTH REPORT

 **Increased risk result**

Ichthyosis, ICH1

Schlabach's Winchester inherited both copies of the variant we tested for Ichthyosis, ICH1

Schlabach's Winchester is at increased risk for Ichthyosis, ICH1

How to interpret this result

Schlabach's Winchester has two copies of a variant at PNPLA1 and is at risk for developing ichthyosis. Please consult your veterinarian to discuss further diagnostics, treatment, and care for this condition.

What is Ichthyosis, ICH1?

This skin disorder gets its name from the thick, darkly pigmented scales of skin ("ichthys" is Greek for "fish") that affected dogs display over most areas of the body, not including the head or extremities.

When signs & symptoms develop in affected dogs

As puppies, affected dogs can show signs of scaling. This disease tends to worsen with age.

Signs & symptoms

Ichthyotic dogs typically have large, greasy flakes of dandruff, but aren't itchy. The scales of skin can get so thick that they can crack and cause fissures, leading to considerable discomfort.

How vets diagnose this condition

Examining the characteristic lesions is the first step in diagnosing Ichthyosis. Confirmatory genetic testing and/or skin biopsies can also be performed.

How this condition is treated

There is no definitive treatment for ichthyosis: typically, ichthyotic dogs are maintained on a continuous treatment of mild anti-dandruff shampoos and moisturizing rinses. This is a chronic and frustrating condition to manage.

Actions to take if your dog is affected

- Following your veterinarian's advice on skin care and nutrition is the best way to manage ichthyosis.

Health Report

HEALTH REPORT

Notable result

Copper Toxicosis (Attenuating)

Schlabach's Winchester inherited one copy of the variant we tested for Copper Toxicosis (Attenuating)

Why is this important to your vet?

Schlabach's Winchester has a genotype at the ATP7A gene that modifies and may help mitigate some of the symptoms from dogs with variants at ATP7B (<https://my.embarkvet.com/members/results/health/condition/140102?i=4>). This variant is not associated with an increased risk of any disease. As this variant resides on the X- chromosome, male dogs with one copy of the variant are better protected from copper accumulation due to the ATP7B variant than female dogs with one copy of the variant.

What is Copper Toxicosis (Attenuating)?

The ATP7A variant is considered beneficial and may be best described as a helpful modifier of the harmful copper toxicosis variant ATP7B (<https://my.embarkvet.com/members/results/health/condition/140102?i=4>). The ATP7A variant may help mitigate some of the symptoms of dogs with variants at ATP7B. Dogs with the ATP7A variant have not been observed to have any beneficial or harmful complications if they have two copies of the normal ATP7B variant.

When signs & symptoms develop in affected dogs

A variant in this gene may delay or have no effect on the onset of clinical signs of copper toxicosis in dogs with the ATP7B (<https://my.embarkvet.com/members/results/health/condition/140102?i=4>) variant. If your dog has the ATP7B variant, please read more about the age of onset on the ATP7B page.

How vets diagnose this condition

No diagnostics are required for this variant. If your dog has the ATP7B (<https://my.embarkvet.com/members/results/health/condition/140102?i=4>) variant, please read what diagnostics may be considered on the ATP7B page.

How this condition is treated

No treatment is required for this variant. If your dog has the ATP7B (<https://my.embarkvet.com/members/results/health/condition/140102?i=4>) variant, please read the available treatment on the ATP7B page.

Actions to take if your dog is affected

- No actions are required for dogs with this variant. If your dog has the ATP7B (<https://my.embarkvet.com/members/results/health/condition/140102?i=4>) variant, please read what actions you can take on the ATP7B page.

Health Report

HEALTH REPORT

Notable result

Copper Toxicosis (Attenuating)

Schlabach's Winchester inherited one copy of the variant we tested for Copper Toxicosis (Attenuating)

Why is this important to your vet?

Schlabach's Winchester has a genotype at the RETN gene that modifies and may help mitigate some of the symptoms from dogs with variants at ATP7B (<https://my.embarkvet.com/members/results/health/condition/140102?i=4>). This variant is not associated with an increased risk of any disease.

What is Copper Toxicosis (Attenuating)?

The RETN variant is considered beneficial and may be best described as a helpful modifier of the harmful copper toxicosis variant ATP7B (<https://my.embarkvet.com/members/results/health/condition/140102?i=4>). The RETN variant may help mitigate some of the symptoms of dogs with variants at ATP7B. Dogs with the RETN variant have not been observed to have any beneficial or harmful complications if they have two copies of the normal ATP7B variant.

When signs & symptoms develop in affected dogs

A variant in this gene may delay or not affect the onset of clinical signs of copper toxicosis in dogs with the ATP7B (<https://my.embarkvet.com/members/results/health/condition/140102?i=4>) variant. If your dog has the ATP7B variant, please read more about the age of onset on the ATP7B page.

How vets diagnose this condition

No diagnostics are required for this variant. If your dog has the ATP7B (<https://my.embarkvet.com/members/results/health/condition/140102?i=4>) variant, please read what diagnostics may be considered on the ATP7B page.

How this condition is treated

No treatment is required for this variant. If your dog has the ATP7B (<https://my.embarkvet.com/members/results/health/condition/140102?i=4>) variant, please read the available treatment on the ATP7B page.

Actions to take if your dog is affected

- No actions are required for dogs with this variant. If your dog has the ATP7B (<https://my.embarkvet.com/members/results/health/condition/140102?i=4>) variant, please read what actions you can take on the ATP7B page.

Health Report

HEALTH REPORT

Notable result

Progressive Retinal Atrophy, prcd

Schlabach's Winchester inherited one copy of the variant we tested for Progressive Retinal Atrophy, prcd

What does this result mean?

This variant should not impact Schlabach's Winchester's health. This variant is inherited in an autosomal recessive manner, meaning that a dog needs two copies of the variant to show signs of this condition. Schlabach's Winchester is unlikely to develop this condition due to this variant because she only has one copy of the variant.

What is Progressive Retinal Atrophy, prcd?

PRA-prcd is a retinal disease that causes progressive, non-painful vision loss. The retina contains cells, called photoreceptors, that collect information about light and send signals to the brain. There are two types of photoreceptors: rods, for night vision and movement, and cones, for day vision and color. This type of PRA leads to early loss of rod cells, leading to night blindness before day blindness.

When signs & symptoms develop in affected dogs

The age affected dogs will first show signs of visual impairment varies by breed. However, most begin showing clinical signs in early adulthood.

How vets diagnose this condition

Veterinarians use a focused light to examine the pupils. In affected dogs, the pupils will appear more dilated and slower to contract. Your vet may also use a lens to visualize the retina at the back of the eye to look for changes in the optic nerve or blood vessels. You may be referred to a veterinary ophthalmologist for a definitive diagnosis.

How this condition is treated

Currently, there is no definitive treatment for PRA. Supplements, including antioxidants, have been proposed for management of the disease, but have not been scientifically proven effective.

Actions to take if your dog is affected

- Careful monitoring by your veterinarian will be required for the rest of your affected dog's life as secondary complications, including cataracts, can develop.
- With blind dogs, keeping furniture in the same location, making sure they are on a leash in unfamiliar territory, and training them to understand verbal commands are some of the ways to help them at home.

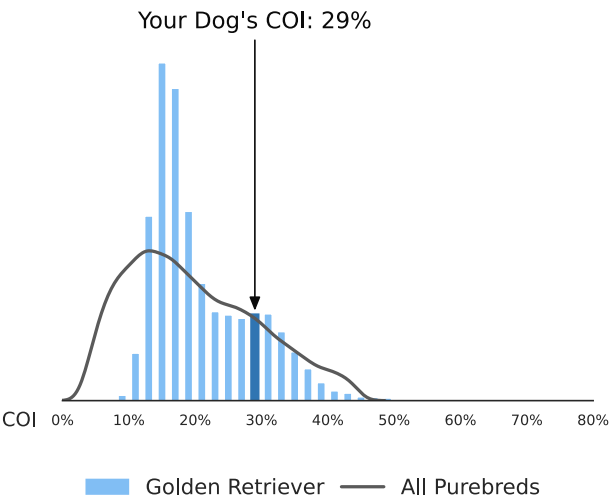
Genetic Diversity and Inbreeding

Coefficient of Inbreeding (COI)

Genetic Result: 29%

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

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

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 250 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

Veterinarians and hospitals can send inquiries to veterinarians@embarkvet.com.