

Dog Information

Horizon's Cheers to Change (Toast)

NAME

**Female** 

**Labrador Retriever** 

**GENETIC BREED** 

October 22nd, 2022 DATE OF BIRTH

American Kennel Club (AKC) \$\$38016801 n/a

REGISTRATION

MICROCHIP

**Emily Shirey** OWNER NAME

**Canine Genetic Health Screen** 

TEST

January 28th, 2023

TEST DATE

#### **BREED HEALTH TESTS**

Centronuclear Myopathy, CNM       PTPLA       NN       Clear         Degenerative Myelopathy, DM       SOD1(A)       GG       Clear         Exercise-Induced Collapse, EIC       DNM1       GG       Clear         Hereditary Nasal Parakeratosis, HNPK       SUV39H2       GG       Clear         Hyperuricosuria and Hyperuricemia or Urolithiasis, HUU       SLC2A9 (Exon 5)       GG       Clear         Macular Corneal Dystrophy, MCD       CHST6       CC       Clear         Narcolepsy       HCRTR2       AA       Clear         Progressive Retinal Atrophy, prod       PRCD Exon 1       GG       Clear         Pyruvate Kinase Deficiency       PKLR Exon 7 SNP Variant 1       CC       Clear         Skeletal Dysplasia 2, SD2       COL11A2       GG       Clear         Achromatopsia       CNGA3 (Exon 7 Deletion)       NN       Clear         Alexander Disease       GFAP (Exon 4)       GG       Clear         Canine Elliptocytosis       SPTB Exon 30       CC       Clear         Congenital Myasthenic Syndrome, CMS       COLQ (Exon 14)       TT       Clear	DISEASE	GENE	GENOTYPE	RESULT	TESTING RECOMMENDED BY
Exercise-Induced Collapse, EIC  DNM1  GG Clear  Hereditary Nasal Parakeratosis, HNPK  SUV39H2  GG Clear  Hyperuricosuria and Hyperuricemia or Urolithiasis, HUU  SLC2A9 (Exon 5)  GG Clear  Macular Corneal Dystrophy, MCD  CHST6  CC Clear  Narcolepsy  HCRTR2  AA Clear  Progressive Retinal Atrophy, prcd  PRCD Exon 1  GG Clear  Pyruvate Kinase Deficiency  PKLR Exon 7 SNP Variant 1  CC Clear  Skeletal Dysplasia 2, SD2  COL11A2  GG Clear  CNGA3 (Exon 7 Deletion)  NN  Clear  Alexander Disease  GFAP (Exon 4)  GG Clear  CC Clear  CC Clear  COLiear  CC Clear  CC CLEAR  CC CC	Centronuclear Myopathy, CNM	PTPLA	NN	Clear	•
Hereditary Nasal Parakeratosis, HNPK  SUV39H2  GG  Clear  Macular Corneal Dystrophy, MCD  CHST6  CC  Clear  Narcolepsy  HCRTR2  AA  Clear  Progressive Retinal Atrophy, prcd  PRCD Exon 1  GG  Clear  Pyruvate Kinase Deficiency  PKLR Exon 7 SNP Variant 1  CC  Clear  COL11A2  GG  Clear  COL249 (Exon 5)  GG  Clear  COL249 (Exon 5)  CC  Clear  COL249 (Exon 6)  CC  CLear  CLear	Degenerative Myelopathy, DM	SOD1(A)	GG	Clear	•
Hyperuricosuria and Hyperuricemia or Urolithiasis, HUU SLC2A9 (Exon 5) GG Clear  Macular Corneal Dystrophy, MCD CHST6 CC Clear  Narcolepsy HCRTR2 AA Clear  Progressive Retinal Atrophy, prcd PRCD Exon 1 GG Clear  Pyruvate Kinase Deficiency PKLR Exon 7 SNP Variant 1 CC Clear  Skeletal Dysplasia 2, SD2 COL11A2 GG Clear  Achromatopsia CNGA3 (Exon 7 Deletion) NN Clear  Alexander Disease GFAP (Exon 4) GG Clear  Canine Elliptocytosis SPTB Exon 30 CC Clear	Exercise-Induced Collapse, EIC	DNM1	GG	Clear	•
Macular Corneal Dystrophy, MCD  CHST6  CC  Clear  Narcolepsy  HCRTR2  AA  Clear  Progressive Retinal Atrophy, prcd  PRCD Exon 1  GG  Clear  Pyruvate Kinase Deficiency  PKLR Exon 7 SNP Variant 1  CC  Clear  Skeletal Dysplasia 2, SD2  COL11A2  GG  Clear  CNGA3 (Exon 7 Deletion)  NN  Clear  Alexander Disease  GFAP (Exon 4)  GG  CC  Clear  CC  Clear  COL11A2  COL1A2	Hereditary Nasal Parakeratosis, HNPK	SUV39H2	GG	Clear	•
Narcolepsy       HCRTR2       AA       Clear       ♥         Progressive Retinal Atrophy, prcd       PRCD Exon 1       GG       Clear       ♥         Pyruvate Kinase Deficiency       PKLR Exon 7 SNP Variant 1       CC       Clear       ♥         Skeletal Dysplasia 2, SD2       COL11A2       GG       Clear       ♥         Achromatopsia       CNGA3 (Exon 7 Deletion)       NN       Clear       ★         Alexander Disease       GFAP (Exon 4)       GG       Clear       ★         Canine Elliptocytosis       SPTB Exon 30       CC       Clear       ★	Hyperuricosuria and Hyperuricemia or Urolithiasis, HUU	SLC2A9 (Exon 5)	GG	Clear	•
Progressive Retinal Atrophy, prcd  PRCD Exon 1  GG  Clear  Pyruvate Kinase Deficiency  PKLR Exon 7 SNP Variant 1  CC  Clear  COL11A2  GG  Clear  COL11A2  Achromatopsia  CNGA3 (Exon 7 Deletion)  NN  Clear  Alexander Disease  GFAP (Exon 4)  GG  Clear  COL11A2  COL1A2  COL11A2  COL11A2  COL1A2  COL1A22  COL1A222  CO	Macular Corneal Dystrophy, MCD	снѕт6	CC	Clear	•
Pyruvate Kinase Deficiency  PKLR Exon 7 SNP Variant 1  CC  Clear  Skeletal Dysplasia 2, SD2  COL11A2  GG  Clear  CNGA3 (Exon 7 Deletion)  NN  Clear  Alexander Disease  GFAP (Exon 4)  GG  CC  Clear  COL11A2  COL1A2  COL1A2  COL1AB  COL1	Narcolepsy	HCRTR2	AA	Clear	•
Skeletal Dysplasia 2, SD2  COL11A2  GG Clear  Achromatopsia  CNGA3 (Exon 7 Deletion)  NN Clear  Alexander Disease  GFAP (Exon 4)  GG Clear  Canine Elliptocytosis  SPTB Exon 30  CC Clear	Progressive Retinal Atrophy, prcd	PRCD Exon 1	GG	Clear	•
Achromatopsia CNGA3 (Exon 7 Deletion) NN Clear  Alexander Disease GFAP (Exon 4) GG Clear  Canine Elliptocytosis SPTB Exon 30 CC Clear	Pyruvate Kinase Deficiency	PKLR Exon 7 SNP Variant 1	CC	Clear	•
Alexander Disease GFAP (Exon 4) GG Clear  Canine Elliptocytosis SPTB Exon 30 CC Clear	Skeletal Dysplasia 2, SD2	COL11A2	GG	Clear	•
Canine Elliptocytosis SPTB Exon 30 CC Clear	Achromatopsia	CNGA3 (Exon 7 Deletion)	NN	Clear	×
	Alexander Disease	GFAP (Exon 4)	GG	Clear	x
Congenital Myasthenic Syndrome, CMS COLQ (Exon 14) TT Clear	Canine Elliptocytosis	SPTB Exon 30	СС	Clear	×
	Congenital Myasthenic Syndrome, CMS	COLQ (Exon 14)	TT	Clear	x
Golden Retriever Progressive Retinal Atrophy 2, GR-PRA2 TTC8 Exon 8 NN Clear	Golden Retriever Progressive Retinal Atrophy 2, GR-PRA2	TTC8 Exon 8	NN	Clear	x



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Horizon's Cheers to Change (Toast) Female NAME SEX

Labrador Retriever October 22nd, 2022
GENETIC BREED DATE OF BIRTH

American Kennel Club (AKC) \$\$38016801 n/a
REGISTRATION MICROCHIP

Emily Shirey
OWNER NAME

Canine Genetic Health Screen

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#### **BREED HEALTH TESTS**

DISEASE	GENE	GENOTYPE	RESULT	TESTING RECOMMENDED BY
Myotubular Myopathy 1, X-linked Myotubular Myopathy, XL-MTM	MTM1 (Exon 7)	СС	Clear	ਮ
Progressive Retinal Atrophy, crd4/cord1	RPGRIP1 (Exon 2)	NN	Clear	×
Ullrich-like Congenital Muscular Dystrophy	COL6A3	GG	Clear	×



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Horizon's Cheers to Change (Toast)

NAME

#### **INBREEDING AND DIVERSITY**

Genetic Diversity	RESULT	GENETIC RESULT
Coefficient Of Inbreeding		11%
MHC Class II - DLA DRB1		No Diversity
MHC Class II - DLA DQA1 and DQB1		Low Diversity

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### TRAIT TESTS (1/3)

Coat Color	RESULT	GENETIC RESULT
E Locus (MC1R)	No dark hairs anywhere	ee
K Locus (CBD103)	Not expressed	K <sub>B</sub> K <sub>B</sub>
Intensity Loci LINKAGE	Any pigmented hair likely yellow or tan	Intermediate Red Pigmentation
A Locus (ASIP)	Not expressed	a <sup>y</sup> a <sup>t</sup>
D Locus (MLPH)	Not expressed	DD
Cocoa (HPS3)	No co alleles, not expressed	NN
B Locus (TYRP1)	Likely black colored nose/feet	Bb
Saddle Tan (RALY)	Not expressed	NI
S Locus (MITF)	Likely to have little to no white in coat	ss
M Locus (PMEL)	No merie alleles	mm
R Locus (USH2A) LINKAGE	Likely no impact on coat pattern	rr

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### TRAIT TESTS (2/3)

Coat Color	RESULT	GENETIC RESULT
H Locus (Harlequin)	No harlequin alleles	hh
Other Coat Traits	RESULT	GENETIC RESULT
Furnishings (RSPO2) LINKAGE	Likely unfurnished (no mustache, beard, and/or eyebrows)	II
Coat Length (FGF5)	Likely short or mid-length coat	GG
Shedding (MC5R)	Likely heavy/seasonal shedding	СС
Hairlessness (FOXI3) LINKAGE	Very unlikely to be hairless	NN
Hairlessness (SGK3)	Very unlikely to be hairless	NN
Oculocutaneous Albinism Type 2 (SLC45A2) LINKAGE	Likely not albino	NN
Coat Texture (KRT71)	Likely straight coat	СС
Other Body Features	RESULT	GENETIC RESULT
Muzzle Length (BMP3)	Likely medium or long muzzle	СС
Tail Length (T)	Likely normal-length tail	СС
Hind Dewclaws (LMBR1)	Unlikely to have hind dew claws	СС

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### TRAIT TESTS (3/3)

Other Body Features	RESULT	GENETIC RESULT
Blue Eye Color (ALX4) LINKAGE	Less likely to have blue eyes	NN
Back Muscling & Bulk, Large Breed (ACSL4)	Likely normal muscling	СС
Body Size	RESULT	GENETIC RESULT
Body Size (IGF1)	Intermediate	NI
Body Size (IGFR1)	Larger	GG
Body Size (STC2)	Intermediate	TA
Body Size (GHR - E191K)	Larger	GG
Body Size (GHR - P177L)	Larger	СС
Performance	RESULT	GENETIC RESULT
Altitude Adaptation (EPAS1)	Normal altitude tolerance	GG
Appetite (POMC) LINKAGE	Normal food motivation	NN