embark

DNA Test Report

Dog Information

Hoss
NAME

Male
SEX

Labrador Retriever
BREED ANCESTRY

March 30th, 2019
DATE OF BIRTH

American Kennel Club (AKC) SS11225202
REGISTRATION

n/a
MICROCHIP

Nancy Hollis
OWNER NAME

Canine Genetic Health Screen
TEST

May 23rd, 2021
TEST DATE

BREED HEALTH TESTS

DISEASE	GENE	GENOTYPE	RESULT	TESTING RECOMMENDED BY
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, 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	
Congenital Myasthenic Syndrome, CMS	COLQ (Exon 14)	TT	Clear	
Golden Retriever Progressive Retinal Atrophy 2, GR-PRA2	TTC8 Exon 8	NN	Clear	

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Myotubular Myopathy 1, X-linked Myotubular Myopathy, XL-MTM	MTM1 (Exon 7)	CY	Clear	🐕
Progressive Retinal Atrophy, crd4/cord1	RPGRIP1 (Exon 2)	NN	Clear	🐕
Ullrich-like Congenital Muscular Dystrophy	COL6A3	GG	Clear	🐕

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INBREEDING AND DIVERSITY

Genetic Diversity	RESULT	GENETIC RESULT
Coefficient Of Inbreeding		**20%**
MHC Class II - DLA DRB1		**No Diversity**
MHC Class II - DLA DQA1 and DQB1		**No 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	$K^B K^B$
Intensity Loci LINKAGE	Any pigmented hair likely yellow or tan	Intermediate Red Pigmentation
A Locus (ASIP)	Not expressed	$a^t a^t$
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	II
S Locus (MITF)	Likely to have little to no white in coat	SS
M Locus (PMEL)	No merle 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	CC
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	CC

Other Body Features	RESULT	GENETIC RESULT
Muzzle Length (BMP3)	Likely medium or long muzzle	CC
Tail Length (T)	Likely normal-length tail	CC
Hind Dewclaws (LMBR1)	Unlikely to have hind dew claws	CC

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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	CC

Body Size	RESULT	GENETIC RESULT
Body Size (IGF1)	Intermediate	NI
Body Size (IGFR1)	Larger	GG
Body Size (STC2)	Larger	TT
Body Size (GHR - E191K)	Larger	GG
Body Size (GHR - P177L)	Larger	CC

Performance	RESULT	GENETIC RESULT
Altitude Adaptation (EPAS1)	Normal altitude tolerance	GG
Appetite (POMC) LINKAGE	Likely to be more food motivated	ND