

## Dog Information

<b>Izzy</b> NAME	<b>Female</b> SEX
<b>Golden Retriever</b> BREED ANCESTRY	<b>--</b> DATE OF BIRTH
<b>n/a</b> REGISTRATION	<b>n/a</b> MICROCHIP

**Andrew Hershberger**  
OWNER NAME

**Canine Genetic Health Screen**  
TEST

**August 12th, 2022**  
TEST DATE

## BREED HEALTH TESTS

DISEASE	GENE	GENOTYPE	RESULT	TESTING RECOMMENDED BY
Degenerative Myelopathy, DM	SOD1(A)	GG	Clear	
Golden Retriever Progressive Retinal Atrophy 1, GR-PRA1	SLC4A3 Exon 16	NN	Clear	
Golden Retriever Progressive Retinal Atrophy 2, GR-PRA2	TTC8 Exon 8	NN	Clear	
Ichthyosis, ICH1	PNPLA1 (Exon 8)	ACC/TACTACTA	1 Variant	
Muscular Dystrophy	DMD	AA	Clear	
Progressive Retinal Atrophy, prcd	PRCD Exon 1	GA	1 Variant	
Congenital Myasthenic Syndrome, CMS	COLQ	GG	Clear	
Dystrophic Epidermolysis Bullosa	COL7A1 (Exon 68)	GG	Clear	
Neuronal Ceroid Lipofuscinosis 5, NCL 5	CLN5 (Exon 4 Deletion)	NN	Clear	
Osteogenesis Imperfecta, Brittle Bone Disease	COL1A1 (Exon 18)	GG	Clear	
Retina Dysplasia and/or Optic Nerve Hypoplasia	SIX6 Exon 1	CC	Clear	

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## INBREEDING AND DIVERSITY

Genetic Diversity	RESULT	GENETIC RESULT
Coefficient Of Inbreeding		31%
MHC Class II - DLA DRB1		High Diversity
MHC Class II - DLA DQA1 and DQB1		High Diversity

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## TRAIT TESTS (1/2)

Coat Color	RESULT	GENETIC RESULT
E Locus (MC1R)	No dark hairs anywhere	ee
K Locus (CBD103)	Not expressed	K <sup>B</sup> k <sup>γ</sup>
Intensity Loci LINKAGE	Any pigmented hair likely yellow or tan	Intermediate Red Pigmentation
A Locus (ASIP)	Not expressed	a <sup>+</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	ll
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
H Locus (Harlequin)	No harlequin alleles	hh
Other Coat Traits	RESULT	GENETIC RESULT
Furnishings (RSPO2) LINKAGE	Likely unfurnished (no mustache, beard, and/or eyebrows)	ll

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## TRAIT TESTS (2/2)

Body Size	RESULT	GENETIC RESULT
Body Size (IGF1)	Larger	NN
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	Normal food motivation	NN