

Dog Information

Freedom	Male
NAME	SEX
Golden Retriever	April 12th, 2025
GENETIC BREED	DATE OF BIRTH
American Kennel Club (AKC)	n/a
REGISTRATION	MICROCHIP

Shep Golden
OWNER NAME

Canine Genetic Health Screen
TEST

December 26th, 2025
TEST DATE

BREED HEALTH TESTS

DISEASE	GENE	GENOTYPE	RESULT	TESTING RECOMMENDED BY
Degenerative Myelopathy, DM	SOD1A	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	
Ichthyosis, ICH2	ABHD5 Exon 7	NN	Clear	
Muscular Dystrophy	DMD	AY	Clear	
Progressive Retinal Atrophy, prcd	PRCD Exon 1	GG	Clear	
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	

Dog Information

Freedom
NAME

INBREEDING AND DIVERSITY

Genetic Diversity	RESULT	GENETIC RESULT
Coefficient Of Inbreeding		31%
MHC Class II - DLA DRB1		No Diversity
MHC Class II - DLA DQA1 and DQB1		Low Diversity

Dog Information

Freedom
NAME

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 ^Y
Intensity Loci	Any pigmented hair likely white or cream	Dilute 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)	Likely no impact on coat pattern	rr

Dog Information

Freedom
NAME

TRAIT TESTS (2/3)

Coat Color	RESULT	GENETIC RESULT
H Locus (Harlequin)	No harlequin alleles	hh
Panda White Spotting	Not expected to display Panda pattern	NN

Other Coat Traits	RESULT	GENETIC RESULT
Furnishings (RSP02)	Likely unfurnished (no mustache, beard, and/or eyebrows)	II
Coat Length (FGF5)	Likely long coat	LhLh
Shedding (MC5R)	Likely heavy/seasonal shedding	CT
Coat Texture (KRT71)	Likely straight coat	CC
Hairlessness (FOXI3)	Very unlikely to be hairless	NN
Hairlessness (SGK3)	Very unlikely to be hairless	NN
Oculocutaneous Albinism Type 2 (SLC45A2)	Likely not albino	NN

Other Body Features	RESULT	GENETIC RESULT
Muzzle Length (BMP3)	Likely medium or long muzzle	CC
Tail Length (T)	Likely normal-length tail	CC

Dog Information

Freedom
NAME

TRAIT TESTS (3/3)

Other Body Features		RESULT	GENETIC RESULT
Hind Dewclaws (LMBR1)	Unlikely to have hind dew claws	CC	
Chondrodysplasia (Chr. 18 FGF4 Retrogene)	Not indicative of chondrodysplasia (normal leg length)	NN	
Blue Eye Color (ALX4)	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)	Larger	NN	
Body Size (IGFR1)	Larger	GG	
Body Size (STC2)	Larger	TT	
Body Size (GHR - E191K)	Intermediate	GA	
Body Size (GHR - P177L)	Larger	CC	
Performance		RESULT	GENETIC RESULT
Altitude Adaptation (EPAS1)	Normal altitude tolerance	GG	
Appetite (POMC)	Normal food motivation	NN	