

## Dog Information

<b>Applejax (Apple)</b> NAME	<b>Female</b> SEX
<b>Russell-type Terrier</b> BREED ANCESTRY	<b>January 28th, 2021</b> DATE OF BIRTH
<b>American Kennel Club (AKC)</b> REGISTRATION	<b>n/a</b> MICROCHIP

**Jennifer Vasseur Harrington**  
OWNER NAME

**Canine Genetic Health Screen**  
TEST

**July 30th, 2022**  
TEST DATE

## BREED HEALTH TESTS

DISEASE	GENE	GENOTYPE	RESULT	TESTING RECOMMENDED BY
Degenerative Myelopathy, DM	SOD1(A)	GG	Clear	
Hyperuricosuria and Hyperuricemia or Urolithiasis, HUU	SLC2A9 (Exon 5)	GT	1 Variant	
Primary Lens Luxation	ADAMTS17	GG	Clear	
Spinocerebellar Ataxia with Myokymia and/or Seizures	KCNJ10	CC	Clear	
Spinocerebellar Ataxia, Late-Onset Ataxia, LoSCA	CAPN1	GG	Clear	
Autosomal Recessive Amelogenesis Imperfecta, Familial Enamel Hypoplasia	ENAM	CC	Clear	
Chondrodystrophy and Intervertebral Disc Disease, CDDY/IVDD, Type I IVDD	FGF4 - chr12	N/N	Clear	
Congenital Myasthenic Syndrome, CMS	CHRNE	NN	Clear	
Severe Combined Immunodeficiency, SCID	PRKDC	GG	Clear	

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## INBREEDING AND DIVERSITY

	RESULT	GENETIC RESULT
Genetic Diversity		
Coefficient Of Inbreeding		4%
MHC Class II - DLA DRB1		High Diversity
MHC Class II - DLA DQA1 and DQB1		High Diversity

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## TRAIT TESTS (1/3)

Coat Color	RESULT	GENETIC RESULT
E Locus (MC1R)	Can have a melanistic mask	E <sup>m</sup> E
K Locus (CBD103)	More likely to have a patterned haircoat	k <sup>y</sup> k <sup>y</sup>
Intensity Loci LINKAGE	Any light hair likely yellow or tan	Intermediate Red Pigmentation
A Locus (ASIP)	Fawn Sable coat color pattern	a <sup>y</sup> a <sup>t</sup>
D Locus (MLPH)	Dark areas of hair and skin are not lightened	DD
Cocoa (HPS3)	No co alleles, not expressed	NN
B Locus (TYRP1)	Black or gray hair and skin	BB
Saddle Tan (RALY)	Not expressed	NN
S Locus (MITF)	Likely flash, parti, piebald, or extreme white	spsp
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 (RSP02) LINKAGE	Likely unfurnished (no mustache, beard, and/or eyebrows)	II
Coat Length (FGF5)	Likely short or mid-length coat	GG
Shedding (MC5R)	Likely light shedding	TT
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	AC
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)	Smaller	II
Body Size (IGFR1)	Intermediate	GA
Body Size (STC2)	Intermediate	TA
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