DNA Test Report

Dog Information

GCH ASCA CH Broken Arrow's No Spare Parts @ StoneHill (AI)
NAME

Australian Shepherd
Breed with variety:
100% Australian Shepherd
BREED ANCESTRY

American Kennel Club (AKC) DN65675903
REGISTRATION

Male
SEX

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DATE OF BIRTH

n/a
MICROCHIP

Penny Allen
OWNER NAME

Canine Genetic Health Screen
TEST

November 19th, 2024
TEST DATE

BREED HEALTH TESTS

To ensure completeness, this report includes all carrier and at risk results for this dog.

DISEASE	GENE	GENOTYPE	RESULT	TESTING RECOMMENDED BY
Canine Multifocal Retinopathy, cmr1	BEST1/VMD2 Exon 2	CC	Clear	🛡️
Collie Eye Anomaly, Choroidal Hypoplasia, CEA	NHEJ1 (Intron 4)	NN	Clear	🛡️
Craniomandibular Osteopathy, CMO	SLC37A2 (Exon 15)	CC	Clear	🛡️
Day Blindness, Cone Degeneration, Achromatopsia	CNGB3	NN	Clear	🛡️
Degenerative Myelopathy, DM	SOD1A	GG	Clear	🛡️
Hereditary Cataracts, Early-Onset Cataracts, Juvenile Cataracts	HSF4	NN	Clear	🛡️
Hyperuricosuria and Hyperuricemia or Urolithiasis, HUU	SLC2A9 (Exon 5)	GG	Clear	🛡️
MDR1 Drug Sensitivity	ABCB1	NN	Clear	🛡️
Progressive Retinal Atrophy, prcd	PRCD Exon 1	GG	Clear	🛡️
Hereditary Ataxia	PNPLA8 Exon 3	NN	Clear	🐕
Junctional Epidermolysis Bullosa	LAMB3 Exon 11	TT	Clear	🐕
Neuronal Ceroid Lipofuscinosis 6, NCL 6	CLN6 (Exon 7)	TT	Clear	🐕
Neuronal Ceroid Lipofuscinosis 8, NCL 8	CLN8	GG	Clear	🐕
Primary Ciliary Dyskinesia, PCD	STK36 Intron 19	GG	Clear	🐕

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INBREEDING AND DIVERSITY

Genetic Diversity	RESULT	GENETIC RESULT
Coefficient Of Inbreeding		**16%**
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^mE
K Locus (CBD103)	More likely to have a patterned haircoat	k^yk^y
Intensity Loci	Any light hair likely yellow or tan	Intermediate Red Pigmentation
A Locus (ASIP)	Black/Brown and tan coat color pattern	a^ta^t
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 saddle tan patterned	II
S Locus (MITF)	Likely to have little to no white in coat	SS
M Locus (PMEL)	One merle allele; may express merle	M*m
R Locus (USH2A)	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
Panda White Spotting	Not expected to display Panda pattern	NN

Other Coat Traits	RESULT	GENETIC RESULT
Furnishings (RSPO2)	Likely unfurnished (no mustache, beard, and/or eyebrows)	II
Coat Length (FGF5)	Likely long coat	LhLh
Shedding (MC5R)	Likely heavy/seasonal shedding	CC
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

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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)	Smaller	II
Body Size (IGFR1)	Larger	GG
Body Size (STC2)	Smaller	AA
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)	Normal food motivation	NN