

DNA Test Report

Dog Information

Brush Dale's Triple Threat (Tito)
NAME

Male
SEX

Munsterlander (Small)
BREED ANCESTRY

April 17th, 2017
DATE OF BIRTH

**North American Versatile Hunting Dog
Association (NAVHDA) SM-004365**
REGISTRATION

n/a
MICROCHIP

**Hunter kamm, Michelle Wilbers, Small
Munsterlander Breeders Network,
Hunter kamm**
OWNER NAMES

Canine Genetic Health Screen
TEST

March 13th, 2024
TEST DATE

BREED HEALTH TESTS

Embark is not aware of any health conditions that should be reported to the OFA for this breed.

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INBREEDING AND DIVERSITY

Genetic Diversity	RESULT	GENETIC RESULT
Coefficient Of Inbreeding		14%
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)	No dark mask or grizzle	EE
K Locus (CBD103)	More likely to have a mostly solid black or brown coat	K ^B K ^B
Intensity Loci	No impact on coat pattern	Intermediate Red Pigmentation
A Locus (ASIP)	Not expressed	aa
D Locus (MLPH)	Dark areas of hair and skin are not lightened	DD
Cocoa (HPS3)	No co alleles, not expressed	NN
B Locus (TYRP1)	Brown hair and skin	bb
Saddle Tan (RALY)	Not expressed	ll
S Locus (MITF)	Likely flash, parti, piebald, or extreme white	spsp
M Locus (PMEL)	No merle alleles	mm
R Locus (USH2A)	Likely no impact on coat pattern	rr

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TRAIT TESTS (2/3)

	RESULT	GENETIC RESULT
Coat Color		
H Locus (Harlequin)	No harlequin alleles	hh
Other Coat Traits		
Furnishings (RSP02)	Likely unfurnished (no mustache, beard, and/or eyebrows)	II
Coat Length (FGF5)	Likely long coat	LhLh
Shedding (MC5R)	Likely light shedding	TT
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		
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
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)	Intermediate	TA
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