

DNA Test Report

Coat Color

Genetic Trait	Gene	Variant	Copies	Result
Fawn	ASIP	a ^y	0	No effect
Recessive Black	ASIP	a	0	No effect
Tan Points	ASIP	a ^t	2	Tan points possible
Dominant Black	CBD103	K ^B	1	Black or brindle possible
Mask	MC1R	E ^m	1	Dark Muzzle possible
Recessive Red (Variant 1)	MC1R	e ¹	0	No effect
Recessive Red (Variant 2)	MC1R	e ²	0	No effect
Recessive Red (Variant 3)	MC1R	e ³	0	No effect
Widow's Peak (Discovered in Ancient dogs)	MC1R	e ^A	0	No effect
Widow's Peak (Discovered in the Afghan Hound and Saluki)	MC1R	E ^G	0	No effect
Red Intensity	MFSD12	i	2	White to yellow coat shades likely
Dilution (Variant 1) Linkage test	MLPH	d ¹	0	No effect
Dilution (Variant 2)	MLPH	d ²	0	No effect
Dilution (Variant 3)	MLPH	d ³	0	No effect
Chocolate (Variant 1)	TYRP1	b ^c	0	No effect
Chocolate (Variant 2)	TYRP1	b ^s	1	Black features likely, chocolate possible
Chocolate (Variant 3)	TYRP1	b ^d	0	No effect
Chocolate (Variant 4)	TYRP1	b ^{asd}	0	No effect

Coat Patterns

Genetic Trait	Gene	Variant	Copies	Result
Piebald	MITF	s ^p	0	No effect

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Coat Patterns (continued)

Genetic Trait	Gene	Variant	Copies	Result
Merle	PMEL	M	0	No effect
Harlequin	PSMB7	H	0	No effect
Saddle Tan	RALY	-	0	No effect

Coat Length and Curl

Genetic Trait	Gene	Variant	Copies	Result
Long Hair (Variant 1)	FGF5	lh ¹	2	Long coat
Long Hair (Variant 2)	FGF5	lh ²	0	No effect
Long Hair (Variant 3)	FGF5	lh ³	0	No effect
Long Hair (Variant 4)	FGF5	lh ⁴	0	No effect
Long Hair (Variant 5)	FGF5	lh ⁵	0	No effect
Curly Coat	KRT71	C	0	No effect

Hairlessness

Genetic Trait	Gene	Variant	Copies	Result
Hairlessness (Discovered in the Chinese Crested Dog)	FOXI3	Hr ^{cc}	0	No effect
Hairlessness (Discovered in the American Hairless Terrier)	SGK3	hr ^{ah}	0	No effect
Hairlessness (Discovered in the Scottish Deerhound)	SKG3	hr ^{sd}	0	No effect

Shedding

Genetic Trait	Gene	Variant	Copies	Result
Reduced Shedding	MC5R	sd	0	Seasonal shedder

Spud
Registration: 491540
Breed: Border Collie

Sample ID: DLQJYPD
Test Date: 1/29/2021
Optimal Selection - Canine

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More Coat Traits

Genetic Trait	Gene	Variant	Copies	Result
Hair Ridge	FGF3, FGF4, FGF19, ORAOV1	R	0	No effect
Furnishings	RSPO2	F	0	No effect
Albino	SLC45A2	c ^{al}	0	No effect

Head Shape

Genetic Trait	Gene	Variant	Copies	Result
Short Snout (Variant 2)	BMP3	-	0	No effect
Short Snout (Variant 1)	SMOC2	-	0	No effect

Eye Color

Genetic Trait	Gene	Variant	Copies	Result
Blue Eyes	ALX4	-	0	No effect

Ears

Genetic Trait	Gene	Variant	Copies	Result
Floppy Ears	MSRB3	-	0	Pricked ears more likely

Extra Toes

Genetic Trait	Gene	Variant	Copies	Result
Hind Dewclaws (Discovered in Asian breeds)	LMBR1	DC-1	0	No effect
Hind Dewclaws (Discovered in Western breeds)	LMBR1	DC-2	1	Hind dewclaws possible