Animal Genetics

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Genetic Testing Report

MINNIE OF FRANKENSTEIN FRENCHIES

Submitted By

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EXAMPLE TEST

Subject Dog

Dog Name: **MINNIE OF FRANKENSTEIN FRENCHIES**
Breed: **French Bulldog**
Phenotype: **CHOCOLATE & TAN**
Sex: **Female**
Birth: **Nov 24, 2020**
Lab Reference [redacted]
Registration: [redacted]

Sire

Dam

Dam: PRINCESS PENELOPE
Breed: French Bulldog
Phenotype: BLUE FAWN

Disorder Results (4 of 16)

CMR1	**n/n**	Clear: Dog is negative for the mutation associated with CMR1.
DM	**n/n**	Clear: Dog is negative for mutation associated with Degenerative Myelopathy.
HUU	**n/n**	Clear: Dog is negative for the mutation associated with Hyperuricosuria.
JHC	**n/n**	Clear: Dog is negative for the mutation associated with Juvenile Hereditary Cataracts.

Color Results (6 of 16)

A-Locus	**at/at**	Dog has two copies of the gene causing tan points.
B-Locus	**B/B**	Dog does not carry the mutation for most forms of chocolate coloration.
Cocoa	**co/co**	Dog carries two copies of cocoa. Dog will have brown coat color.
D-Locus	**D/d**	Heterozygous: Dog carries one copy of the d1 mutation associated with a diluted coat color and may pass the mutation to offspring.
E-Locus	**E/E**	Dog is negative for cream/yellow and negative for mask.
K-Locus	**n/n**	Dog is negative for the KB allele, and the coat coloration will be based on the agouti genotype.

Pattern Results (2 of 16)

Merle	**n/n**	Clear: Dog is negative for the mutation associated with merle.
S-Locus	**n/n**	Negative: Dog is negative for the S-Locus. No white spotting will be present.

Trait Results (4 of 16)

Curl 1&2	**n/n**	The dog is negative for the hair curl allele. The dog will have non-curly hair, and will always pass on the allele responsible for non-curly hair to any offspring
Furnishings	**n/n**	Non-Furnished: Dog is negative for the furnishings mutation.
Hair Length (1-5)	**L/L**	Negative for long coat allele
Shedding	**n/n**	Dog has no copies of the shedding allele. The dog will have a low propensity towards shedding.

DNA Allele Chart	Gene1	Gene2	Coloring	Exclusion	Carrier/Cover
E Locus	Em	Em	Masked		
	Em	E	Masked		
	Em	e	Masked		carries cream
	E	E	Not Masked		
	E	e	Not Masked		carries cream
	e	e	Solid Cream	(hides K Locus/A Locus coloring)	
K Locus	Kbr	Kbr	Brindle	(unless ee, then cream)	
	Kbr	Ky	Brindle	(unless ee, then cream)	carries non-brindle
	Ky	Ky	Fawn	(unless ee, then cream)	
A Locus	Ay	Ay	Fawn	(unless ee, then cream)	

	Ay	Aw	Fawn/Sable	(unless ee, then cream)	
	Ay	At	Fawn/Sable	(unless ee, then cream)	carries tan points
	Ay	a	Fawn/Sable	(unless ee, then cream)	carries recessive black
	Aw	Aw	Wild Sable/Agouti	(unless ee, then cream)	
	Aw	At	Wild Sable/Agouti	(unless ee, then cream)	carries tan points
	Aw	a	Wild Sable/Agouti	(unless ee, then cream)	carries recessive black
	At	At	Tan Points/Black and Tan	(unless ee, then cream)	covers brindle gene
	At	a	Tan Points/Black and Tan	(unless ee, then cream)	carries recessive black
	a	a	Solid Black	(unless ee, then cream)	covers brindle gene
B Locus	B	B	Not Chocolate	*some Frenchies are considered “non-testable chocolate”	

				with “red-eye glow”	
	B	b	Not Chocolate		carries chocolate
	b	b	Chocolate		
D Locus	D	D	Not Blue		
	D	d	Not Blue		carries blue
	d	d	Blue		
S Locus	S	S	Not Pied		
	S	s	Not Pied		carries pied
	s	s	Pied		
M Locus	M	m	Merle		carries Merle
	M	M	Merle		
	m	m	Not Merle		

coco	Co	Co	Not chocolate		
(testable chocolate)	Co	co	Not chocolate		Carries chocolate
	co	co	Chocolate		

Legend for DNA Coat Colors (Beginner Breakdown)

Color Combinations	
Lilac or Isabella	Blue & Chocolate–dd & bb (blue with testable chocolate on the B Locus is Isabella) **OR** dd & coco (blue with testable coco is Lilac)
Platinum (Isabella Platinum or Lilac Platinum)	Blue, Chocolate, & Cream (shows as cream coat)—dd, bb, & ee **OR** dd, coco, & ee
Blue & Tan	Blue with Tan Points—dd & at/a **OR** dd & at/at
Quad Carrier	Has the ability to produce 4 colors in puppies, depending on the other parent's DNA profile (has recessive genes or carries recessive genes for 4 colors)
Tri Carrier	Has the ability to produce 3 colors in puppies, depending on the other parent's DNA profile (has recessive genes or carries recessive genes for 3 colors)