

## Coat Color and Trait Certificate

Call Name: Jack Daniel's  
 Registered Name: Jack Daniel's  
 Breed: French Bulldog  
 Sex: Male  
 DOB: Nov. 2021

Laboratory #: 274840  
 Registration #: -  
 Certificate Date: Dec. 9, 2021

This canine's DNA showed the following genotype(s):

Coat Color/Trait Test	Gene	Genotype	Interpretation
A Locus (Agouti)	ASIP	$a^t/a^t$	Tricolor, black and tan
B Locus (Brown)	TYRP1	b/b	Brown coat, nose and foot pads (carries two copies of brown)
Co Locus (Cocoa, French Bulldog Type)	HPS3	CO/co	Black coat, nose and foot pads (carries one copy of cocoa)
D Locus (Dilute)	MLPH	d/d	Dilute (carries two copies of dilute)
E Locus (Apricot/Yellow/Red) - e (Common Variant Found in Many Breeds)	MC1R	E/E	Black
$E^m$ Locus (Melanistic Mask)	MC1R	$E^m/E^m$	Melanistic mask
K Locus (Dominant Black)	CBP103	$k^y/k^y$	Agouti expression allowed
L Locus (Long Hair/Fluffy) - Lh <sup>4</sup> (Afghan Hound, Eurasier, French Bulldog Type)	FGF5	Sh/Lh	Shorthaired (carries one copy of long hair)
S Locus (White Spotting, Parti, or Piebald)	MITF	S/s <sup>P</sup>	Limited white spotting, flash, parti, or piebald (carrier)

### Interpretation:

This dog carries two copies of  $a^t$  which results in tan points and can also present as a black and tan or tricolor coat color. However, this dog's coat color is also dependent on the E, K, and B genes. The tan point coat color is only expressed if the dog is also E/E or E/e at the E locus and  $k^y/k^y$  at the K locus. This dog will pass on  $a^t$  to 100% of its offspring.

This dog carries two copies of one of the b mutations and has a B locus genotype of b/b. Thus, this dog typically will have a brown coat, nose and foot pads. Depending on the breed, b/b dogs may be referred to as brown, chocolate, liver or red. However, this dog's coat color is dependent on the genotypes of many other genes. This dog will pass one copy of b to 100% of its offspring. This dog can produce b/b offspring if bred to a dog that is also a carrier of a b mutation (B/b or b/b).

This dog carries one copy of the co (cocoa) mutation and has a Co Locus genotype of CO/co. Thus, this dog typically will have a black coat, nose, and foot pads. However, this dog's coat color is dependent on the genotypes of many other genes including the B Locus (Brown). This dog will pass one copy of CO to 50% of its offspring and one copy of co (cocoa) to 50% of its offspring. This dog can produce co/co (cocoa) offspring if bred to a dog that is also a carrier of co (cocoa) (CO/co or co/co).



3382 Capital Circle NE  
Tallahassee, FL 32308

# Genetic Testing Report

Jack Daniels

### Submitted By

George Cagle  
Southern Grace Kennels

### Subject Dog

Dog Name: **Jack Daniels**  
Breed: **French Bulldog**  
Phenotype:  
Sex: **Male**  
Birth:

Lab Reference #: **632432**

### Disorder Results (7 of 7)

CMR1	n/n	Clear: Dog is negative for the mutation associated with CMR1.
CDPA	N/N	Clear: Dog is negative for the CDPA mutation.
CDDY	n/n	Clear: Dog is negative for the CDDY mutation..
cord1	n/n	Clear: Dog is negative for the mutation associated with cord1-PRA.
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.