

Coat Color and Trait Certificate

Call Name: Autumn
Registered Name: -
Breed: Cocker Spaniel
Sex: Female
DOB: Jan. 2023

Laboratory #: 384900
Registration #: -
Certificate Date: Feb. 20, 2023

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

Coat Color/Trait Test	Gene	Genotype	Interpretation
A Locus (Agouti)	<i>ASIP</i>	a^t/a^t	Tricolor, black and tan
A ^S Locus (Saddle Tan)	<i>RALY</i>	N/N	No saddle tan/creeping tan
B Locus (Brown)	<i>TYRP1</i>	B/b or b/b	Black or brown coat, nose and foot pads (carries at least one copy of brown)
D Locus (Dilute)	<i>MLPH</i>	D/D	Non-dilute (does not carry dilute)
E Locus - E ^h (Sable, Cocker Spaniel Type)	<i>MC1R</i>	N/N	No sable
E Locus - e (Apricot/Cream/Red/Yellow, Common Variant Found in Many Breeds)	<i>MC1R</i>	e/e	Yellow/red
I Locus (Intensity)	<i>MFSD12</i>	i/i	Reduced intensity, likely light shades or white
K Locus (Dominant Black)	<i>CBD103</i>	k^B/k^Y	No agouti expression allowed (carrier)
M Locus (Merle)	<i>PMEL</i>	m/m	Non merle
S Locus (White Spotting, Parti, or Piebald)	<i>MITF</i>	S/s ^P	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 the **N** allele, which is not associated with a saddle tan coat color. This dog's coat color is also dependent on the E, A, and K genes, among others. This dog will pass **N** to 100% of its offspring.

This dog carries one or more copies of the four possible b mutations and has a B locus genotype of **B/b** or **b/b** that cannot be distinguished without additional testing of parental samples or by examining the coat, nose and footpad color of the dog. Dogs inherit two copies of the B locus, one from each parent. Because there are four different B locus mutations that can potentially be identified, as well as some limitations inherent to genetic testing methodologies currently available, a result of "B/b or b/b" means that it cannot be determined if the b mutations identified in this dog are present on the same copy of the B locus inherited from one parent or if they occur on separate copies of the B locus inherited from each of the parents. If the mutations identified are all

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Genetic Testing Report

Autumn

Submitted By

Daniel Eash

70366 CR 43
Ligonier, IN 46767
USA

Owned By

Daniel Eash

70366 CR 43
Ligonier, IN 46767
USA

Subject Dog

Name: Autumn
Breed: Cocker Spaniel
Phenotype: Buff
Sex: Female
Birth: 01/--/2023

Lab Reference #: 754177
Sample Date: 11/15/2023
Research Date: 11/15/2023

Disorder Results(6 of 6)

AMS	n/n	Clear: Dog is negative for the mutation associated with Acral Mutilation Syndrome.
DM	n/n	Clear: Dog is negative for mutation associated with Degenerative Myelopathy.
EIC	n/n	Clear: Dog is negative for mutation associated with Exercise-Induced Collapse.
FN	n/n	Clear: Dog is negative for the mutation associated with Familial Nephropathy.
PFK	n/n	Clear: Dog is negative for mutation associated with PFKD.
PRA-prcd	n/n	Negative: Dog is negative for the mutation associated with prcd-PRA.