

DOG COAT COLOR / NATURAL BOBTAIL TEST REPORT

Provided Information:		Case: NCD245469	
Name:	DUMBLEDOOR - GREEN COLLAR	Date Received:	08-Oct-2024
Registration:		Report Issue Date:	14-Oct-2024
		Report ID:	1384-9766-7664-5117
		Verify report at vgl.ucdavis.edu/verify	
DOB: 09/05/2024 Sex: Male Breed: Great Dane			
Sire:	GCHS NORTHERNAIRE WHEN YOU BELIEVE	Dam:	CHROMA BLOOM WHERE YOU ARE PLANTED
Reg:	AKC #WS59778901	Reg:	AKC #WS68250504
Microchip:		Microchip:	

RESULT

INTERPRETATION

DILUTE (D LOCUS)	D/D	No known dilution variants present.
DOMINANT BLACK (K LOCUS)	K/K	2 copies of dominant black are present.
LEGACY AGOUTI	a^y/a^y	Homozygous for fawn/sable.
AGOUTI (A LOCUS)	ASIP^{SY}/ASIP^{SY}	Two copies of shaded yellow.
PIEBALD (S LOCUS)	N/S	Dog has 1 copy of piebald.
HARLEQUIN (GREAT DANE)	N/H	1 copy of the Harlequin mutation is present. If the dog has merle and is black pigmented, the Harlequin pattern is expressed. Breedings between N/H dogs are expected to result in 25% embryonic lethal offspring.

DOG COAT COLOR / NATURAL BOBTAIL TEST REPORT

Client/Owner/Agent Information: TONI GRIFFIN 3918 GOODFELLOW DR. DALLAS, TX 75229	Case: NCD245469 Date Received: 08-Oct-2024 Report Issue Date: 14-Oct-2024 Report ID: 1384-9766-7664-5117 Verify report at vgl.ucdavis.edu/verify
Name: DUMBLEDOOR - GREEN COLLAR	

Additional Information

If testing for a disease or a disorder was performed and results indicate the animal is affected or at risk, we recommend contacting your veterinarian for further clinical evaluation and for additional information on disease and management.

For more detailed information on Dog Coat Color test results, please visit our website at:
vgl.ucdavis.edu/resources/dog-coat-color

Agouti research is ongoing, and additional variation beyond the resolution of this test may exist.

For terms and conditions of testing, please see vgl.ucdavis.edu/about/terms-and-conditions

Results are determined using PCR-based methods. The results relate only to the sample tested as identified by the submitter (for example, identity and/or breed).

Report authorized by Dr. Rebecca Bellone, VGL Director

Veterinary Genetics Laboratory · University of California Davis · One Shields Ave · Davis, CA 95616
vgl.ucdavis.edu · (530) 752-2211









Agouti: the ASIP (A) locus

The Agouti gene, also referred to as the **A locus** or **ASIP locus**, is a gene that controls where and when eumelanin (i.e. black/brown pigment) or phaeomelanin (i.e. red/yellow/tan pigment) is produced in the coat of dogs and other mammals. The old Agouti test (now referred to as Legacy Agouti) identified four alleles at the Agouti locus, but these alleles did not fully explain the different coat color phenotypes controlled by this gene. Recent research by Dr. Bannasch and colleagues has uncovered more of the complexity of dog coat color as it relates to the ASIP locus, allowing our laboratory to offer a more complete test to our clients.

The new Agouti test allows for the identification of eight haplotype combinations, and their correspondence to the Legacy Agouti alleles is shown below.

Note: The illustrations below portray examples of adult coat patterns. Puppy coats typically exhibit more eumelanin (black/brown pigment). For example, in puppies, the Black Saddle coloration looks like Black Back and Shaded Yellow can look very similar to Agouti.

	PHENOTYPE NAME	COMMON NAMES	ASIP HAPLOTYPE COMBINATION	OLD ALLELE Legacy Agouti	
	Dominant Yellow	fawn, sable, red, cream, tan	ASIP^{DY}	a ^y	most dominant
	Shaded Yellow	shaded sable, shaded fawn, fawn, sable, red, cream, tan	ASIP^{SY}		
	Agouti	wolf sable, sable, grey, agouti	ASIP^{AG}	a ^w *	
	Black Saddle	saddle back, saddle tan, black and tan, hound	ASIP^{BS}	a ^t	
	Black Back	black and tan, bicolor, tan points, pointed	ASIP^{BB1} ASIP^{BB2} ASIP^{BB3}		
	Recessive Black	black	ASIP^a	a	least dominant

 Eumelanin (black/brown pigment)
Appearance of pigment will depend on other genes, e.g. Brown (B locus), Dilute (D locus), *MC1R* (E locus), and Dominant Black (K locus)

 Phaeomelanin (yellow/red/tan pigment)
Appearance of pigment will depend on other genes, e.g. Dilute (D locus), Intensity (Iⁿ), and *KITLG*

*In some cases, the a^w Legacy Agouti allele can correspond to the new **ASIP^{BB3}** haplotype combination.

For more detailed information about the new Agouti test, please visit our website at <https://vgl.ucdavis.edu/test/agouti-dog>

DOG COAT COLOR / NATURAL BOBTAIL TEST REPORT

Provided Information:		Case:	NCD245470
Name:	HARRY PAWTER - ORANGE COLLAR	Date Received:	08-Oct-2024
Registration:		Report Issue Date:	14-Oct-2024
		Report ID:	8490-5553-9025-5120
		Verify report at vgl.ucdavis.edu/verify	
DOB: 09/05/2024 Sex: Male Breed: Great Dane			
Sire:	GCHS NORTHERNAIRE WHEN YOU BELIEVE	Dam:	CHROMA BLOOM WHERE YOU ARE PLANTED
Reg:	AKC #WS59778901	Reg:	AKC #WS68250504
Microchip:		Microchip:	

RESULT

INTERPRETATION

DILUTE (D LOCUS)	D/D	No known dilution variants present.
DOMINANT BLACK (K LOCUS)	K/K	2 copies of dominant black are present.
LEGACY AGOUTI	a^y/a^y	Homozygous for fawn/sable.
AGOUTI (A LOCUS)	ASIP^{SY}/ASIP^{SY}	Two copies of shaded yellow.
PIEBALD (S LOCUS)	N/N	Dog has no copies of piebald.
HARLEQUIN (GREAT DANE)	N/H	1 copy of the Harlequin mutation is present. If the dog has merle and is black pigmented, the Harlequin pattern is expressed. Breedings between N/H dogs are expected to result in 25% embryonic lethal offspring.

DOG COAT COLOR / NATURAL BOBTAIL TEST REPORT

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Name: HARRY PAWTER - ORANGE COLLAR	

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DOG COAT COLOR / NATURAL BOBTAIL TEST REPORT

<i>Provided Information:</i>		<i>Case:</i> NCD245471	
<i>Name:</i>	GINNY - RED COLLAR	<i>Date Received:</i>	08-Oct-2024
<i>Registration:</i>		<i>Report Issue Date:</i>	14-Oct-2024
		<i>Report ID:</i>	4712-3846-2835-9188
		Verify report at vgl.ucdavis.edu/verify	
<i>DOB:</i> 09/05/2024 <i>Sex:</i> Female <i>Breed:</i> Great Dane <i>Color:</i> Mantle			
<i>Sire:</i>	GCHS NORTHERNAIRE WHEN YOU BELIEVE	<i>Dam:</i>	CHROMA BLOOM WHERE YOU ARE PLANTED
<i>Reg:</i>	AKC #WS59778901	<i>Reg:</i>	AKC #WS68250504
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INTERPRETATION

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Name: GINNY - RED COLLAR	

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