



VETERINARY GENETICS LABORATORY
SCHOOL OF VETERINARY MEDICINE
ONE SHIELDS AVENUE
DAVIS, CALIFORNIA 95616-8744

TELEPHONE: (530) 752-2211
FAX: (530) 752-3556

HORSE COAT COLOR TEST RESULTS

DIANE POITEVIN 6 ROUTE D'ECUELLES 77250 EPISY FRANCE		Case: DT23854 Date Received: 17-Mar-2010 Report Date: 23-Mar-2010 Report ID: 3788-1641-1032-4051
Horse: SW CHAMPAGNE KING YOB: 06 Breed: QH Sex: S		Reg: 4918754 Alt. ID:
Sire: SW TAKE CARE TOO Dam: CHAMPAGNE MISS DUN		Reg: 3498508 Reg: 4234976
RED FACTOR	Both black and red factors detected. Either E or e transmitted to offspring. Basic color is black, bay or brown in the absence of other modifying genes.	
E/e		
AGOUTI	Black pigment distributed in points pattern. Basic color is bay or brown in the absence of other modifying genes.	
A/a		
CREAM DILUTION	No evidence for the Cream dilution altered sequence detected. Basic color is sorrel or chestnut, bay or black in the absence of other modifying genes.	
N/N		
PEARL DILUTION	No evidence of the altered sequence detected.	
N/N		
SILVER DILUTION	No evidence of the altered sequence detected.	
N/N		
LETHAL WHITE OVERO	Not requested.	
SABINO 1	Not requested.	
TOBIANO	Not requested.	
CHAMPAGNE	Two copies of the altered sequence detected. All offspring are expected to be Champagne diluted.	
Ch/Ch		

Horse Coat Color Results with Explanations

Red Factor

e/e - Only the red factor detected. Basic color is sorrel or chestnut in the absence of other modifying genes.

E/e - Both black and red factors detected. Either E or e transmitted to offspring. Basic color is black, bay or brown in the absence of other modifying genes.

E/E - No red factor detected. Horse cannot have red foals regardless of the color of mate. Basic color is black, bay or brown in the absence of other modifying genes.

Agouti

A/A - Black pigment distributed in points pattern. Basic color is bay or brown in the absence of other modifying genes.

A/a - Black pigment distributed in points pattern. Basic color is bay or brown in the absence of other modifying genes.

a/a - Only recessive allele detected. Black pigment distributed uniformly. Basic color is black in the absence of other modifying genes.

Cream

N/N - No evidence for the Cream dilution altered sequence detected. Basic color is sorrel or chestnut, bay or black in the absence of other modifying genes.

N/Cr - Heterozygous, dilute, one copy of Cream gene. Typical colors are palomino, buckskin and smoky black in the absence of other modifying genes.

Cr/Cr - Double dilute (two copies of Cream gene). Typical colors are cremello, perlino and smoky cream in the absence of other modifying genes.

Pearl

N/N - No evidence of the altered sequence detected.

N/Pr1 - One copy of the altered sequence detected. If Cream dilution is also present, a pseudo-double Cream dilute phenotype will result.

Pr1/Pr1 - Two copies of the altered sequence detected. On a chestnut base color, a uniform apricot color of body hair, mane and tail will result.

Tobiano

N/N - No evidence of altered sequence detected. Horse is not Tobiano.

N/TO - One copy of altered sequence. Approximately 50% of the offspring will inherit Tobiano.

TO/TO - Two copies of altered sequence. Horse is homozygous for Tobiano. All offspring will inherit Tobiano.

Silver

N/N - No evidence of the altered sequence detected.

N/Z - One copy of the altered sequence detected. Black-based horses will be chocolate with flaxen or lightened mane and tail. Bay-based horses will have lightened black pigment on lower legs, mane and tail. No effect on chestnut color.

Z/Z - Two copies of altered sequence detected. Black-based horses will be chocolate with flaxen or lightened mane and tail. Bay-based horses will have lightened black pigment on lower legs, mane and tail. No effect on chestnut color.

Lethal White Overo

N/N - No evidence for the altered sequence detected.

N/O - One copy of the altered sequence detected. If bred to another N/O horse, there is a 25% chance of producing a lethal white overo foal. The N/O type has been detected in Paints (including breeding stock), Pintos, Thoroughbreds, Miniatures, Quarter Horses and Tennessee Walking Horses.

O/O - Only the altered sequence in the EDNRB gene detected. This result has only been obtained with samples from lethal white overo foals.

Sabino 1

N/N - No evidence of altered sequence detected.

N/SB1 - One copy of the Sabino 1 gene detected. Horse typically may have 2 or more white legs, blaze, spots or roaning in the midsection and jagged margins around white areas.

SB1/SB1 - Two copies of the Sabino 1 gene detected. Complete or nearly complete white phenotype expected.

Champagne

N/N - No evidence of altered sequence detected.

N/Ch - One copy of the altered sequence detected. Chestnut color (red) is diluted to gold, bay to tan with brown points and black to darker tan with brown points.

Ch/Ch - Two copies of the altered sequence detected. All offspring are expected to be Champagne diluted.

Gray

N/N - No copies of the gray gene. Horse will not turn gray.

N/G - One copy of the gray gene. Horse will turn gray and approximately 50% of offspring will be gray.

G/G - Two copies of the gray gene. Horse will turn gray and all offspring will be gray.