

## HORSE COAT COLOR / PATTERN TEST REPORT

### **Provided Information:**

Name: BET HESA CAT

Registration: 4809494

Case: Date Received: Report Issue Date: Report ID:

## NQ51863

25-Jul-2019 19-Apr-2025 7619-7568-6417-1017

Verify report at vgl.ucdavis.edu/verify

DOB: 01/01/2006 Sex: Stallion Breed: Quarter Horse

RESULT		INTERPRETATION	RESU	LT	INTERPRETATION
RED FACTOR		Not requested.	SPLASHED WHITE		Not requested.
AGOUTI		Not requested.	TOBIANO		Not requested.
CREAM		Not requested.	LEOPARD		Not requested.
PEARL		Not requested.	PATTERN-1		Not requested.
SILVER		Not requested.	BRINDLE 1		Not requested.
DUN		Not requested.	TIGER EYE		Not requested.
CHAMPAGNE		Not requested.	MUSHROOM (SHETLAND PONY)		Not requested.
LETHAL WHITE OVERO		Not requested.	GRAY PRESENCE OR ABSENCE		Not requested.
SABINO 1		Not requested.	ROAN	Rn/N	1 copy of classic Roan detected.
DOMINANT WHITE (W5, W10, W13, W20, W22)		Not requested.	L		1



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Client/Owner/Agent Information:	Case:	NQ51863
GLENN BLODGETT	Date Received:	25-Jul-2019
	Report Issue Date:	19-Apr-2025
	Report ID:	7619-7568-6417-1017
	Verify report at vgl.ucdavis.edu/verify	
Name: BET HESA CAT		

#### **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 Coat Color test results, please visit our website at: vgl.ucdavis.edu/resources/horse-coat-color

#### License Information

Tests for Tobiano are performed under license.

Report authorized by Dr. Rebecca Bellone, VGL Director

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).



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

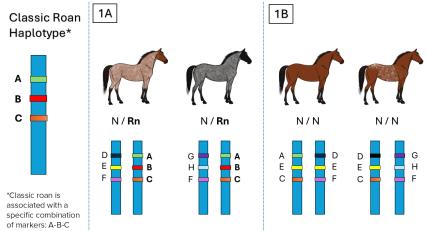
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# **Roan Zygosity Test**

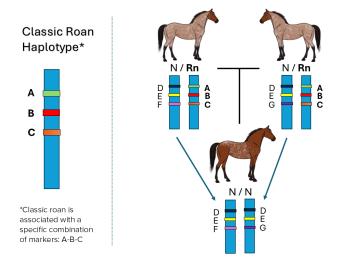
Classic roan is a specific white coat patterning in horses characterized by intermixed white and pigmented hairs in the body, while the head, lower legs, mane and tail typically remain fully pigmented. The white and pigmented hairs are often evenly distributed in horses that inherit classic roan, which can differentiate this pattern from several patterns that look similar and are also referred to as roaning.

Research at the VGL identified a haplotype, meaning a combination of DNA markers, that is associated specifically with the classic roan coat pattern (Figure 1). Given the existence of other white spotting patterns that also display roaning, it is possible for a horse to have what appears to be a roan phenotype but not have the classic roan haplotype tested by the VGL.



**Figure 1:** An illustrated and simplified example of our classic roan haplotype test. Figure 1A shows classic roan horses that are heterozygous for the classic roan haplotype (haplotype A-B-C). These horses are reported as N/Rn. Figure 1B shows horses without the classic roan haplotype. These horses are reported as N/N and may or may not display roaning in the coat. Roaning that is not explained by the classic roan haplotype (i.e., a horse with roan in the coat but with a roan genetic marker report of N/N) is likely caused by some other genetic variant that is currently unknown.

Please note that it is possible for two classic roan horses, who are heterozygous for roan (N/Rn), to produce a horse that may have a roan-like coat pattern but not have the classic roan haplotype (Figure 2). The cause of a horse such as the one displayed in Figure 2 is still not known.



**Figure 2:** Illustration of a simplified version of our roan haplotype test to show how two roan parents can produce a foal without the classic roan haplotype. In this case, each parent is heterozygous for classic roan (N/Rn) and passed on the non-roan haplotype to the offspring. The foal, despite having a roan-like phenotype does not have the classic roan haplotype. The foal's white pattern is most likely explained by some other, yet unknown, DNA variant impacting white patterning that one or both parents may also have.

Read more about the Roan Zygosity Test at https://vgl.ucdavis.edu/test/roan

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