

CATTLE COAT COLOR TEST REPORT

Provided Information: Name: AINSLEY Registration:	Case: NC106587 Date Received: 04-Aug-2026 Report Issue Date: 12-Aug-2026 Report ID: 7144-6091-1806-7077 Verify report at vgl.ucdavis.edu/verify
DOB: 07/27/2026 Sex: Female Breed: Scottish Highland	

RESULT

DILUTION (PMEL17)	Dh/Dh
MC1R (EXTENSION)	e/e

INTERPRETATION

Two copies of PMEL17-delTTC dilution variant. Coat color is pale cream/white.

Recessive red. When bred to another 'e/e' will produce only red offspring.

CATTLE COAT COLOR TEST REPORT

Client/Owner/Agent Information: MIKE ISAAC 17020 HEBRON RD HARVARD, IL 60033-9363	Case: NC106587 Date Received: 04-Aug-2026 Report Issue Date: 12-Aug-2026 Report ID: 7144-6091-1806-7077 Verify report at vgl.ucdavis.edu/verify
Name: AINSLEY	

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 Cattle Coat Color test results, please visit our website at:
vgl.ucdavis.edu/test/mc1r-cattle
vgl.ucdavis.edu/test/cattle-dilution

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

The coat color phenotype in cattle depends on multiple genes. The Veterinary Genetics Laboratory offers testing for Extension (*MC1R* gene) and Dilution (*PMEL17* gene).

The table below shows the expected phenotype based on the various possible genotype combinations of these two genes. While these two loci together explain some coat color phenotypes in Highland cattle, it is important to note that other, yet unknown, genes may influence the resulting coat color observed and the animal may have a different phenotype than what is predicted by the Extension and Dilution genotypes alone.

Extension (<i>MC1R</i>)	Dun Dilution (<i>PMEL17</i>)	Coat Color Phenotype Predictions
E+/E+	N/N	Red
E+/e	N/N	Red
e/e	N/N	Red
E+/E+	Dh/N	Yellow
E+/e	Dh/N	Yellow
e/e	Dh/N	Yellow
E+/E+	Dh/Dh	White/cream
E+/e	Dh/Dh	White/cream
e/e	Dh/Dh	White/cream
ED/ED	N/N	Black
ED/E+	N/N	Black
ED/e	N/N	Black
ED/ED	Dh/N	Dun
ED/E+	Dh/N	Dun
ED/e	Dh/N	Dun
ED/ED	Dh/Dh	Silver Dun (CAN) or Silver (USA)*
ED/E+	Dh/Dh	Silver Dun (CAN) or Silver (USA)*
ED/e	Dh/Dh	Silver Dun (CAN) or Silver (USA)*

Table 1: Coat color phenotypes based on Extension and Dilution genotypes. *Adapted from Schmutz SM, Dreger DL. (2013) doi: 10.1111/j.1365-2052.2012.02361.x.*

* The Canadian Highland Cattle Society uses the term "Silver Dun" whereas the American Highland Cattle Association refers to this phenotype as "Silver"

For more detailed information about these coat color genes, please visit our website at <https://vgl.ucdavis.edu/test/mc1r-cattle> and <https://vgl.ucdavis.edu/test/cattle-dilution>

DEXTER GENETIC TEST REPORT

Provided Information: Name: AINSLEY Registration:	Case: NC106587 Date Received: 04-Aug-2026 Report Issue Date: 12-Aug-2026 Report ID: 1520-0391-6584-4077 Verify report at vgl.ucdavis.edu/verify
DOB: 07/27/2026 Sex: Female Breed: Scottish Highland	

RESULT	INTERPRETATION
MC1R (EXTENSION)	Animal has two copies of recessive red and is red in color.
e/e	
Dun (TYRP1)	
Not Requested	
Dexter Dilution (SLC45A2)	
Not Requested	
Pulmonary Hypoplasia with Anasarca (PHA)	
Not Requested	
Polled vs. Horned	HORNED. No copies of either Polled molecular marker are present.
H/H	
Bulldog Dwarfism (BD1)	Normal, does not have the Dexter BD1 Bulldog mutation.
N/N	
Bulldog Dwarfism (BD2)	
Not Requested	

DEXTER GENETIC TEST REPORT

Client/Owner/Agent Information: MIKE ISAAC 17020 HEBRON RD HARVARD, IL 60033-9363	Case: NC106587 Date Received: 04-Aug-2026 Report Issue Date: 12-Aug-2026 Report ID: 1520-0391-6584-4077 Verify report at vgl.ucdavis.edu/verify
Name: AINSLEY	

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 Dexter Genetic test results, please visit our website at:
vgl.ucdavis.edu/services/cattle/dexter-tests

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