UCDAVIS VETERINARY MEDICINE
Veterinary Genetics Laboratory

DEXTER GENETIC TEST REPORT

Provided Information:	***Case:*** **NC67121**
Name: **BETHEL HOMESTEAD JACK**	***Date Received:*** 05-Aug-2021
Registration:	***Report Issue Date:*** 09-Sep-2021
	Report ID: 6224-0058-3283-7044
	Verify report at www.vgl.ucdavis.edu/verify

DOB: **04/29/2021** *Sex:* **Male** *Breed:* **Mini-Mid Jerseys**

RESULT	INTERPRETATION
MC1R (EXTENSION)	
Not Requested	
Dun (TYRP1)	
Not Requested	
Pulmonary Hypoplasia with Anasarca (PHA)	
Not Requested	
Polled vs. Horned	HomD POLLED. One copy of Polled-Celtic and 1 copy of Polled-Friesian molecular markers are present. All offspring will be polled.
Pc/Pf	
Bulldog Dwarfism (BD1)	Normal, does not have the Dexter BD1 Bulldog mutation.
N/N	
Bulldog Dwarfism (BD2)	
Not Requested	

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CATTLE MILK PROTEIN GENETIC TEST REPORT

Provided Information:	***Case:*** **NC67121**
Name: **BETHEL HOMESTEAD JACK**	***Date Received:*** 05-Aug-2021
Registration:	***Report Issue Date:*** 22-Aug-2021
	Report ID: 9440-8454-0583-3091
	Verify report at www.vgl.ucdavis.edu/verify
DOB: **04/29/2021** *Sex:* **Male** *Breed:* **Mini-Mid Jerseys**	

Beta Casein Result	Kappa Casein Result	Beta Lactoglobulin Result
A2/A2	**Not Requested**	**Not Requested**

Beta Casein (A2 Genotyping) Interpretation

In the A2C nomenclature for A2 genotyping, the Beta Casein above corresponds to A2/A2.

Milk yield and protein content. The A2 variant has been shown to have a positive association with milk yield and protein content. The expanded beta casein test reflected in this report detects variants A1, A2, A3, B, C, D, E, F, G, H1, H2, I, K and L.

Based on the aminoacid present in position 67 these variants can be classified into 2 groups - A1 and A2. Variants in the A1-group (Histidine) are A1, B, C, F and G. Variants in the A2-group (Proline) are A2, A3, D, E, H1, H2, I, K and L. The levels of bioactive peptide beta-casomorphin 7 (BCM7) produced from the metabolism of beta casein is several-fold higher for variants in the A1 group than in the A2 group. Higher levels of BCM7 have been associated with negative health effects in humans. Relative to levels of BCM7 production, variants within each group behave similarly but may differ in other properties.

Kappa Casein Interpretation

Protein yield and percentage. The A variant and AA genotype are associated with higher milk production. The B variant and BB genotype are associated with increased milk protein and casein content, and better cheese yield. Relative to protein content and cheese production, BB is the most favorable genotype, AB is intermediate and AA is the least favorable.

Beta Lactoglobulin Interpretation

Milk yield and whey protein content. The A variant is associated with increased milk yield and whey protein content. The B variant is associated with increased casein and fat content and is favorable for cheese production.