

Batch Detail Report

Batch : 9078U
Owner : JJ (Nelius) Ferreira
Farm : Grootdraai
Account : FERJ01
Origin : PRIVATE
Invoice To : Owner

Created : 2022-05-31

— 0682666 BON —

SAMPLE	ANIMAL	SPECIES	BREED	DAM	SIRE	TEST	RESULT	INVOICE
9078U032	AJF20-0083 (M,1)	CATTLE	BONSMARA (1)			SNP50_C	IG50 : IGENITY 50K	
9078U036	AJF20-0107 (M,1)	CATTLE	BONSMARA (1)			SNP50_C	IG50 : IGENITY 50K	
9078U037	AJF20-0118 (M,1)	CATTLE	BONSMARA (1)			SNP50_C	IG50 : IGENITY 50K	
9078U038	AJF20-0125 (M,1)	CATTLE	BONSMARA (1)			SNP50_C	IG50 : IGENITY 50K	
9078U039	AJF20-0127 (M,1)	CATTLE	BONSMARA (1)			SNP50_C	IG50 : IGENITY 50K	
9078U050	AJF19-0307 (N/S,1)	CATTLE	BONSMARA (1)			SNP50_C	IG50 : IGENITY 50K	
9078U051	AJF20-0103 (N/S,1)	CATTLE	BONSMARA (1)			SNP50_C	IG50 : IGENITY 50K	

Report Date : 28-Jun-2022 13:40

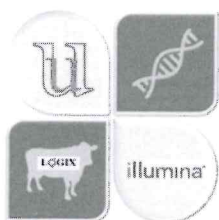
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Unistel report these results on the premise that the biological samples received are from the individuals nominated by the owner/ breeder/ requestee.
This Certificate replaces all previously issued certificates.

Disclaimer:

While every reasonable effort is made to prevent faulty results, Unistel Medical Laboratories do not accept any responsibility for any losses that may occur as a result of human or technical error. Should gross negligence be proven the claim shall not exceed the value of the contract

CHARNÉ ROSSOUW
DIVISION MANAGER



Unistel Medical Laboratories
Genetic Report
 BOVINESNP50-24 v3 BeadChip

JJ (Nelius) Ferreira
 Grootdraai
 BONSMARA
AJF20-0083
9078U032

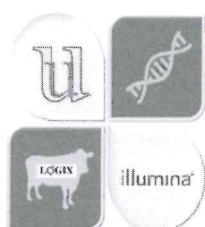
Animal Tested:

Sample type:

Hair

Description	Mutations	Status	Description	Mutations Tested	Status
Coat colouration	MC1R - e	E+/E+	Meat	Calpain 1 - 316	G/G
	MC1R - ED	E+/E+	Tenderness	Calpain 1 - 4751	T/T
	PMEL17 Dilution	+/+		Calpain 1 - 530	G/G
	Silver Dilution type 1	+/+		Calpastain - 282	C/C
	Silver Dilution type 2	+/+		Calpastain - 2870	G/G
Myostatin Status	Myostatin C313Y	Clear		Calpastain - 2959	A/A
	Myostatin E226X	Clear			
	Myostatin E291X	Clear	Milk status	Beta Casein - 245	A1/A2
	Myostatin nt419	Clear		Beta Casein - 411	B/B
	Myostatin nt821	Clear		Kappa Casein - 352	A/A
	Myostatin Q204X	Clear		Kappa Casein - 467	A/A
	Myostatin D182N	Clear		Kappa Casein - 470	A/B
	Myostatin F94L	Clear		Kappa Casein - 506	A/B
	Myostatin S105C	Clear		Kappa Casein - 526	A/A
POMPE Status	E7 mutation	Clear			
	E13 mutation	Clear	Milk quality	Growth Hormone F279Y	Increased milk, casein & lactose yield; decreased protein & fat yield
	E18 mutation	Clear		Growth Hormone 2141	Decreased milk protein & fat yield
Hornedness	Polled Celtic	Heterozygous Polled		Growth Hormone 2291	Normal milk fat yield, fat & protein %
Heat Tolerance	SLICK	Clear		ABCG2 - protein yield milk	Normal fat, protein & milk yield; normal fat & protein %
Eye Disorders	Pinkeye resistance	Reduced risk 16-26%		AcylCoA - milk fat percentage	Normal milk fat & protein concentration, normal milk volume
Bone Disorder	Osteopetrosis	Clear		Trimethylaminuria excess in milk	Clear
				Yellow milk fat	Normal yellow fat

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Unistel Medical Laboratories

Genetic Report

BOVINESNP50-24 v3 BeadChip

JJ (Nelius) Ferreira
Grootdraai
BONSMARA

Animal Tested:

AJF20-0107

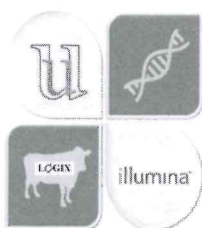
9078U036

Sample type:

Hair

Description	Mutations	Status	Description	Mutations Tested	Status
Coat colouration	MC1R - e	E+/E+	Meat	Calpain 1 - 316	G/G
	MC1R - ED	E+/E+	Tenderness	Calpain 1 - 4751	C/T
	PMEL17 Dilution	+/+		Calpain 1 - 530	A/G
	Silver Dilution type 1	+/+		Calpastain - 282	C/C
	Silver Dilution type 2	+/+		Calpastain - 2870	G/G
Myostatin Status	Myostatin C313Y	Clear		Calpastain - 2959	A/A
	Myostatin E226X	Clear			
	Myostatin E291X	Clear	Milk status	Beta Casein - 245	A1/A2
	Myostatin nt419	Clear		Beta Casein - 411	B/B
	Myostatin nt821	Clear		Kappa Casein - 352	A/A
	Myostatin Q204X	Clear		Kappa Casein - 467	G1/G1
	Myostatin D182N	Clear		Kappa Casein - 470	A/A
	Myostatin F94L	Clear		Kappa Casein - 506	B/B
	Myostatin S105C	Clear		Kappa Casein - 526	A/A
POMPE Status	E7 mutation	Clear			
	E13 mutation	Clear	Milk quality	Growth Hormone F279Y	Increased milk, casein & lactose yield; decreased protein & fat yield
	E18 mutation	Clear		Growth Hormone 2141	Normal milk protein & fat yield
Hornedness	Polled Celtic	Horned		Growth Hormone 2291	Normal milk fat yield, fat & protein %
Heat Tolerance	SLICK	Clear		ABCG2 - protein yield milk	Normal fat, protein & milk yield; normal fat & protein %
Eye Disorders	Pinkeye resistance	Reduced risk 16-26%		AcylCoA - milk fat percentage	Intermediate milk fat & protein concentration, slightly reduced volume
	Osteopetrosis	Clear		Trimethylaminuria excess in milk	Clear
Bone Disorder				Yellow milk fat	Normal yellow fat

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Unistel Medical Laboratories
Genetic Report
 BOVINESNP50-24 v3 BeadChip

JJ (Nelius) Ferreira
 Grootdraai
 BONSMARA

Animal Tested:

AJF20-0118

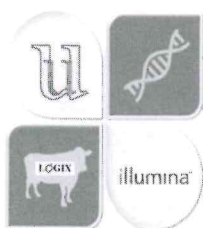
9078U037

Sample type:

Hair

Description	Mutations	Status	Description	Mutations Tested	Status
Coat colouration	MC1R - e	E+/E+	Meat	Calpain 1 - 316	G/G
	MC1R - ED	E+/E+	Tenderness	Calpain 1 - 4751	C/T
	PMEL17 Dilution	+/+		Calpain 1 - 530	G/G
	Silver Dilution type 1	+/+		Calpastain - 282	C/C
	Silver Dilution type 2	+/+		Calpastain - 2870	G/G
Myostatin Status	Myostatin C313Y	Clear		Calpastain - 2959	A/A
	Myostatin E226X	Clear			
	Myostatin E291X	Clear	Milk status	Beta Casein - 245	A2/A2
	Myostatin nt419	Clear		Beta Casein - 411	B/B
	Myostatin nt821	Clear		Kappa Casein - 352	A/A
	Myostatin Q204X	Clear		Kappa Casein - 467	A/A
	Myostatin D182N	Clear		Kappa Casein - 470	A/B
	Myostatin F94L	Clear		Kappa Casein - 506	A/B
	Myostatin S105C	Clear		Kappa Casein - 526	A/A
POMPE Status	E7 mutation	Clear			
	E13 mutation	Clear	Milk quality	Growth Hormone F279Y	Increased milk, casein & lactose yield; decreased protein & fat yield
	E18 mutation	Clear		Growth Hormone 2141	Decreased milk protein & fat yield
Hornedness	Polled Celtic	Horned		Growth Hormone 2291	Increased milk fat yield, fat & protein %
Heat Tolerance	SLICK	Clear		ABCG2 - protein yield milk	Normal fat, protein & milk yield; normal fat & protein %
Eye Disorders	Pinkeye resistance	Reduced risk 16-26%		AcylCoA - milk fat percentage	Intermediate milk fat & protein concentration, slightly reduced volume
Bone Disorder	Osteopetrosis	Clear		Trimethylaminuria excess in milk	Clear
				Yellow milk fat	Normal yellow fat

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Unistel Medical Laboratories
Genetic Report
 BOVINESNP50-24 v3 BeadChip

JJ (Nelius) Ferreira
 Grootdraai
 BONSMARA

Animal Tested:

AJF20-0125

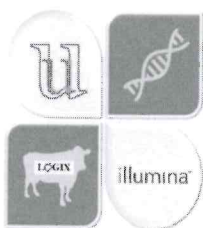
9078U038

Sample type:

Hair

Description	Mutations	Status	Description	Mutations Tested	Status
Coat colouration	MC1R - e	E+/E+	Meat	Calpain 1 - 316	G/G
	MC1R - ED	E+/E+	Tenderness	Calpain 1 - 4751	C/T
	PMEL17 Dilution	+/+		Calpain 1 - 530	G/G
	Silver Dilution type 1	+/+		Calpastain - 282	C/C
	Silver Dilution type 2	+/+		Calpastain - 2870	G/G
Myostatin Status	Myostatin C313Y	Clear		Calpastain - 2959	A/A
	Myostatin E226X	Clear			
	Myostatin E291X	Clear	Milk status	Beta Casein - 245	A1/A2
	Myostatin nt419	Clear		Beta Casein - 411	B/B
	Myostatin nt821	Clear		Kappa Casein - 352	A/A
	Myostatin Q204X	Clear		Kappa Casein - 467	A/G1
	Myostatin D182N	Clear		Kappa Casein - 470	A/A
	Myostatin F94L	Clear		Kappa Casein - 506	B/B
	Myostatin S105C	Clear		Kappa Casein - 526	A/A
POMPE Status	E7 mutation	Clear			
	E13 mutation	Clear	Milk quality	Growth Hormone F279Y	Increased milk, casein & lactose yield; decreased protein & fat yield
	E18 mutation	Clear		Growth Hormone 2141	Decreased milk protein & fat yield
Hornedness	Polled Celtic	Horned		Growth Hormone 2291	Normal milk fat yield, fat & protein %
Heat Tolerance	SLICK	Clear		ABCG2 - protein yield milk	Normal fat, protein & milk yield; normal fat & protein %
Eye Disorders	Pinkeye resistance	Reduced risk 16-26%		AcylCoA - milk fat percentage	Increased milk fat & protein concentration; decreased milk volume
	Osteopetrosis	Clear		Trimethylaminuria excess in milk	Clear
Bone Disorder				Yellow milk fat	Normal yellow fat

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Unistel Medical Laboratories
Genetic Report
 BOVINESNP50-24 v3 BeadChip

JJ (Nelius) Ferreira
 Grootdraai
 BONSMARA
AJF20-0127
9078U039

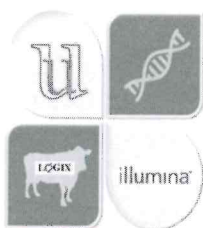
Animal Tested:

Sample type:

Hair

Description	Mutations	Status	Description	Mutations Tested	Status
Coat colouration	MC1R - e	E+/E+	Meat	Calpain 1 - 316	G/G
	MC1R - ED	E+/E+	Tenderness	Calpain 1 - 4751	T/T
	PMEL17 Dilution	+/+		Calpain 1 - 530	G/G
	Silver Dilution type 1	+/+		Calpastain - 282	C/C
	Silver Dilution type 2	+/+		Calpastain - 2870	G/G
Myostatin Status	Myostatin C313Y	Clear		Calpastain - 2959	A/A
	Myostatin E226X	Clear			
	Myostatin E291X	Clear	Milk status	Beta Casein - 245	A1/A2
	Myostatin nt419	Clear		Beta Casein - 411	B/B
	Myostatin nt821	Clear		Kappa Casein - 352	A/A
	Myostatin Q204X	Clear		Kappa Casein - 467	A/G1
	Myostatin D182N	Clear		Kappa Casein - 470	A/A
	Myostatin F94L	Clear		Kappa Casein - 506	B/B
	Myostatin S105C	Clear		Kappa Casein - 526	A/A
POMPE Status	E7 mutation	Clear			
	E13 mutation	Clear	Milk quality	Growth Hormone F279Y	Increased milk, casein & lactose yield; decreased protein & fat yield
	E18 mutation	Clear		Growth Hormone 2141	Decreased milk protein & fat yield
Hornedness	Polled Celtic	Heterozygous Polled		Growth Hormone 2291	Normal milk fat yield, fat & protein %
Heat Tolerance	SLICK	Clear		ABCG2 - protein yield milk	Normal fat, protein & milk yield; normal fat & protein %
Eye Disorders	Pinkeye resistance	Reduced risk 16-26%		AcylCoA - milk fat percentage	Intermediate milk fat & protein concentration, slightly reduced volume
Bone Disorder	Osteopetrosis	Clear		Trimethylaminuria excess in milk	Clear
				Yellow milk fat	Normal yellow fat

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Unistel Medical Laboratories
Genetic Report
 BOVINESNP50-24 v3 BeadChip

JJ (Nelius) Ferreira
 Grootdraai
 BONSMARA
 AJF19-0307
 9078U050

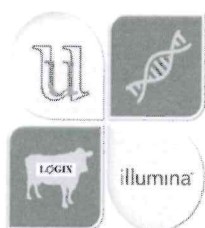
Animal Tested:

Sample type:

Hair

Description	Mutations	Status	Description	Mutations Tested	Status
Coat colouration	MC1R - e	E+/E+	Meat	Calpain 1 - 316	G/C
	MC1R - ED	E+/E+	Tenderness	Calpain 1 - 4751	C/C
	PMEL17 Dilution	+/+		Calpain 1 - 530	G/G
	Silver Dilution type 1	+/+		Calpastain - 282	C/C
	Silver Dilution type 2	+/+		Calpastain - 2870	G/G
Myostatin Status	Myostatin C313Y	Clear		Calpastain - 2959	A/A
	Myostatin E226X	Clear			
	Myostatin E291X	Clear	Milk status	Beta Casein - 245	A1/A1
	Myostatin nt419	Clear		Beta Casein - 411	B/B
	Myostatin nt821	Clear		Kappa Casein - 352	A/A
	Myostatin Q204X	Clear		Kappa Casein - 467	A/G1
	Myostatin D182N	Clear		Kappa Casein - 470	A/B
	Myostatin F94L	Clear		Kappa Casein - 506	A/B
	Myostatin S105C	Clear		Kappa Casein - 526	A/A
POMPE Status	E7 mutation	Clear			
	E13 mutation	Clear	Milk quality	Growth Hormone F279Y	Intermediate milk, casein & lactose yield, slightly reduced protein & fat yield
	E18 mutation	Clear		Growth Hormone 2141	Decreased milk protein & fat yield
Hornedness	Polled Celtic	Homozygous Polled		Growth Hormone 2291	Normal milk fat yield, fat & protein %
Heat Tolerance	SLICK	Clear		ABCG2 - protein yield milk	Normal fat, protein & milk yield; normal fat & protein %
Eye Disorders	Pinkeye resistance	Reduced risk 16-26%		AcylCoA - milk fat percentage	Intermediate milk fat & protein concentration, slightly reduced volume
Bone Disorder	Osteopetrosis	Clear		Trimethylaminuria excess in milk	Clear
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Unistel Medical Laboratories

Genetic Report

BOVINESNP50-24 v3 BeadChip

JJ (Nelius) Ferreira
Grootdraai
BONSMARA

Animal Tested:

AJF20-0103

9078U051

Sample type:

Hair

Description	Mutations	Status	Description	Mutations Tested	Status
Coat colouration	MC1R - e	E+/E+	Meat	Calpain 1 - 316	G/G
	MC1R - ED	E+/E+	Tenderness	Calpain 1 - 4751	T/T
	PMEL17 Dilution	+/+		Calpain 1 - 530	G/G
	Silver Dilution type 1	+/+		Calpastain - 282	G/C
	Silver Dilution type 2	+/+		Calpastain - 2870	A/G
Myostatin Status	Myostatin C313Y	Clear		Calpastain - 2959	A/G
	Myostatin E226X	Clear			
	Myostatin E291X	Clear	Milk status	Beta Casein - 245	A1/A2
	Myostatin nt419	Clear		Beta Casein - 411	B/B
	Myostatin nt821	Clear		Kappa Casein - 352	A/A
	Myostatin Q204X	Clear		Kappa Casein - 467	A/A
	Myostatin D182N	Clear		Kappa Casein - 470	A/A
	Myostatin F94L	Clear		Kappa Casein - 506	B/B
	Myostatin S105C	Clear		Kappa Casein - 526	A/A
POMPE Status	E7 mutation	Clear			
	E13 mutation	Clear	Milk quality	Growth Hormone F279Y	Increased milk, casein & lactose yield; decreased protein & fat yield
	E18 mutation	Clear		Growth Hormone 2141	Decreased milk protein & fat yield
Hornedness	Polled Celtic	Horned		Growth Hormone 2291	Normal milk fat yield, fat & protein %
Heat Tolerance	SLICK	Clear		ABCG2 - protein yield milk	Normal fat, protein & milk yield; normal fat & protein %
Eye Disorders	Pinkeye resistance	Reduced risk 16-26%		AcylCoA - milk fat percentage	Increased milk fat & protein concentration; decreased milk volume
Bone Disorder	Osteopetrosis	Clear		Trimethylaminuria excess in milk	Clear
				Yellow milk fat	Normal yellow fat

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