

0567327CHL

MUTATION ANALYSIS REPORT

Order Information

Name	ZELPHY 2648 PTY LTD. (ZEL001)	Print Date	2022-05-31
Telephone No.:	0836273147	Date received:	2022-04-14
E-mail address:	madde@mweb.co.za	No. samples:	1

Description of Procedure

Myostatin is essential for proper regulation of skeletal muscle development. Hyperplasia (double-muscling) is a result of a defective myostatin protein. Multiple alleles in the Myostatin gene affect muscle mass, some affect calving difficulty. We test the F94L, Q204X and Nt821 mutations. The genotype for each known mutation region is presented below where WT refers to the wild type genotype and MUT refers to the mutated genotype. All mutant genotypes will be highlighted in red. Q204X, E226X, E291X, C313Y, nt419, and 821del11, result in double muscling (hyperplasia), larger birth weights, difficult birthing, and meat tenderness. F94L, S105C, and D182N increase muscularity, reduce external and intramuscular fat, but do not influence the birth weight of the calf.

MYO_Q204X (Found in Charolaise and Limousin lineages)
Genetic: c.610C>T

MYO_821del11 (Found in Belgian Blue, Limousin, South Devon, Santa Gertrudis, and Angus lineages)
Mutation: c.821-831delTGAACACTCCA

MYO_F94L (Found in Angus and Limousin lineages)
Mutation: c.282C>A

Lab No.	Sample ID	Myostatin		
		MYO_Q204X	MYO_Nt821del11	MYO_F94L
ZOCA2022/30332	BL1872	WT/WT	WT/WT	WT/WT

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CATTLE MUTATION ANALYSIS REPORT

Order Information

Name:	Zelphy 2648 PTY LTD	Print Date:	2022/05/05
Telephone No.:	0828226561	Date received:	2022/04/14
E-mail address:	madde@mweb.co.za	No. samples:	2

Description of Procedure

Molecular genotyping for Double Muscling (Myostatin: F94L, Q204X and Nt821). The genotype for each known mutation region is presented below where WT refers to the wild type genotype and MUT refers to the mutated genotype. All mutant genotypes will be highlighted in red.

Lab No.	Sample ID	Double Muscling (Myostatin)					
		F94L		Q204X		Nt821	
ZOCA2022-30464	BL20344	WT	WT	WT	WT	WT	WT
ZOCA2022-30465	BL20338	WT	WT	WT	WT	WT	WT

Dr Christiaan Labuschagne
Genomics Manager

2022/05/05

Date

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CATTLE MUTATION ANALYSIS REPORT

Order Information

Name:	Zelphy 2648 PTY LTD	Print Date:	2022/05/19
Telephone No.:	0828226561	Date received:	2022/04/14
E-mail address:	madde@mweb.co.za	No. samples:	6

Description of Procedure

Molecular genotyping for Double Muscling (Myostatin: F94L, Q204X and Nt821). The genotype for each known mutation region is presented below where WT refers to the wild type genotype and MUT refers to the mutated genotype. All mutant genotypes will be highlighted in red.

Lab No.	Sample ID	Double Muscling (Myostatin)					
		F94L		Q204X		Nt821	
ZOCA2022-30437	BL20-359	WT	WT	WT	WT	WT	WT
ZOCA2022-30442	KBL20-331	WT	WT	WT	WT	WT	WT
ZOCA2022-30444	KBL20392	WT	WT	WT	WT	WT	WT
ZOCA2022-30445	KBL20-322	WT	WT	WT	WT	WT	MUT
ZOCA2022-30449	BL20330	WT	WT	WT	WT	WT	WT
ZOCA2022-30451	KBL20308	WT	WT	WT	WT	WT	WT

Dr Christiaan Labuschagne
Genomics Manager

2022/05/19

Date

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Telephone No.:	0828226561	Date received:	2022/04/14
E-mail address:	madde@mweb.co.za	No. samples:	14

Description of Procedure							
Molecular genotyping for Double Muscling (Myostatin: F94L, Q204X and Nt821). The genotype for each known mutation region is presented below where WT refers to the wild type genotype and MUT refers to the mutated genotype. All mutant genotypes will be highlighted in red.							
Lab No.	Sample ID	Double Muscling (Myostatin)					
		F94L		Q204X		Nt821	
ZOCA2022-30409	KBL20-331	WT	WT	WT	WT	WT	WT
ZOCA2022-30413	KBL20-336	WT	WT	WT	WT	WT	WT
ZOCA2022-30416	KBL20-324	WT	WT	WT	WT	WT	WT
ZOCA2022-30417	KBL20-334	WT	WT	WT	WT	WT	WT
ZOCA2022-30418	KBL20-365	WT	WT	WT	WT	WT	WT
ZOCA2022-30421	BL20-356	WT	WT	WT	WT	WT	WT
ZOCA2022-30422	BL20-329	WT	WT	WT	WT	WT	WT
ZOCA2022-30425	BL20-310	WT	WT	WT	WT	WT	WT
ZOCA2022-30427	BL20-370	WT	WT	WT	WT	WT	WT
ZOCA2022-30429	BL20-368	WT	WT	WT	WT	WT	WT
ZOCA2022-30430	BL20-328	WT	WT	WT	WT	WT	WT
ZOCA2022-30432	BL20-373	WT	WT	WT	WT	WT	WT
ZOCA2022-30434	KBL20-322	WT	WT	WT	WT	WT	WT
ZOCA2022-30435	KBL20-357	WT	WT	WT	WT	WT	WT

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CATTLE MUTATION ANALYSIS REPORT

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Name:	Zelphy 2648 PTY LTD	Print Date:	2022/05/24
Telephone No.:	0828226561	Date received:	2022/04/14
E-mail address:	madde@mweb.co.za	No. samples:	3

Description of Procedure

Molecular genotyping for Double Muscling (Myostatin: F94L, Q204X and Nt821). The genotype for each known mutation region is presented below where WT refers to the wild type genotype and MUT refers to the mutated genotype. All mutant genotypes will be highlighted in red.

Lab No.	Sample ID	Double Muscling (Myostatin)					
		F94L		Q204X		Nt821	
ZOCA2022-30464	BL20344	WT	WT	WT	WT	WT	WT
ZOCA2022-30465	BL20338	WT	WT	WT	WT	WT	WT
ZOCA2022-30493	WSV21-007	WT	WT	WT	MUT	WT	WT

Dr Christiaan Labuschagne
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2022/05/24

Date

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