



ZooOmics™ is a division of Inqaba Biotechnical Industries Pty Ltd
info@ZooOmics.co.za
525 Justice Mahomed Str, Muckleneuk, Pretoria 0002
PO Box 14356, Hatfield, Pretoria 0028

CATTLE MUTATION ANALYSIS REPORT

Order Information

Name:	Wilzak Boerdery	Print Date:	2023/03/01
Telephone No.:	0839855815	Date received:	2023/02/22
E-mail address:	eilsca@wilzak.co.za	No. samples:	22

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)					
		Q204X		Nt821		F94L	
ZOCA2023-45078	TOP230100	WT	WT	WT	WT	WT	WT
ZOCA2023-45079	TOP230101	WT	WT	WT	WT	WT	WT
ZOCA2023-45080	TOP230102	WT	WT	WT	WT	WT	WT
ZOCA2023-45081	TOP230103	WT	WT	WT	WT	WT	WT
ZOCA2023-45082	TOP230104	WT	WT	WT	WT	WT	MUT
ZOCA2023-45083	TOP230105	WT	WT	WT	WT	WT	WT
ZOCA2023-45084	TOP230106	WT	WT	WT	WT	WT	WT
ZOCA2023-45085	TOP230107	WT	WT	WT	WT	WT	MUT
ZOCA2023-45086	TOP230108	WT	WT	WT	WT	WT	WT
ZOCA2023-45087	TOP230109	WT	WT	WT	WT	WT	WT
ZOCA2023-45088	TOP230110	WT	WT	WT	WT	WT	WT
ZOCA2023-45089	TOP230111	WT	WT	WT	WT	WT	WT
ZOCA2023-45090	TOP230112	WT	WT	WT	WT	WT	MUT
ZOCA2023-45091	TOP230113	WT	WT	WT	WT	WT	WT
ZOCA2023-45092	TOP230114	WT	WT	WT	WT	WT	WT
ZOCA2023-45093	TOP230115	WT	WT	WT	WT	WT	WT
ZOCA2023-45094	TOP230116	WT	WT	WT	WT	WT	WT
ZOCA2023-45095	TOP230117	WT	WT	WT	WT	WT	WT
ZOCA2023-45096	TOP230118	WT	WT	WT	WT	WT	WT
ZOCA2023-45097	TOP230119	WT	WT	WT	WT	WT	WT
ZOCA2022-41061	703	WT	WT	WT	WT	WT	WT
ZOCA2023-43588	755	WT	WT	WT	WT	WT	WT

Dr Christiaan Labuschagne
Genomics Manager

2023/03/01

Date

**Disclaimer

Whatever is contained in this report is subject to the following:

Inqaba Biotechnical Industries Pty Ltd and the divisions thereof (Registration number: 2001/011245/07) accepts that the biological specimen(s) provided, originates from the relevant animal(s) as indicated on the relevant specimen(s) provided;

It is the responsibility of the client that all biological samples are available or has previously been submitted,

and corresponds with all requested samples listed on the sample submission form. Inqaba Biotechnical Industries Pty Ltd and the divisions thereof does not accept responsibility for the effect of any absent samples on the analysis results;

Inqaba Biotechnical Industries Pty Ltd and the divisions thereof accepts that all genetic profiles and/or samples from external sources are correctly labelled and accurate;

Inqaba Biotechnical Industries Pty Ltd and the divisions thereof shall not be responsible for human and/or technical errors that could not have been foreseen;

This document is solely for the use of the addressee and only in connection for the purpose set out in this document. Inqaba Biotechnical Industries Pty Ltd and the divisions thereof do not assume liability or responsibility to any third party to which this document is disclosed or otherwise made available;

Nothing in this document should be construed as advice to proceed or not to proceed with any specific course of action, as it was not prepared for that purpose;

The DNA profile is based on a preliminary marker panel that is subject to modification pending additional genetic information;

It is the sender's responsibility to obtain permits when sending samples where required;

Inqaba Biotechnical Industries Pty Ltd and the divisions thereof reserves the right to decline testing of samples;

No guarantees are made with regards to turn-around time and results, and no liability will be accepted for any delays.



ZooOmics™ is a division of Inqaba Biotechnical Industries Pty Ltd
info@ZooOmics.co.za
525 Justice Mahomed Str, Muckleneuk, Pretoria 0002
PO Box 14356, Hatfield, Pretoria 0028

CATTLE MUTATION ANALYSIS REPORT

Order Information

Name:	Wilzak Boerdery	Print Date:	4/13/2023
Telephone No.:	0839855815	Date received:	4/5/2023
E-mail address:	elisca@wilzak.co.za	No. samples:	20

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)					
		Q204X		Nt821		F94L	
ZOCA2023-46789	TOP230120	WT	WT	WT	WT	WT	WT
ZOCA2023-46790	TOP230121	WT	WT	WT	WT	WT	WT
ZOCA2023-46791	TOP230122	WT	WT	WT	WT	WT	MUT
ZOCA2023-46792	TOP230123	WT	WT	WT	WT	WT	WT
ZOCA2023-46793	TOP230124	WT	WT	WT	WT	WT	WT
ZOCA2023-46794	TOP230125	WT	WT	WT	WT	WT	WT
ZOCA2023-46795	TOP230126	WT	WT	WT	WT	WT	MUT
ZOCA2023-46796	TOP230127	WT	WT	WT	WT	WT	MUT
ZOCA2023-46797	TOP230128	WT	WT	WT	WT	WT	WT
ZOCA2023-46798	TOP230129	WT	WT	WT	WT	WT	MUT
ZOCA2023-46799	TOP230130	WT	WT	WT	WT	WT	MUT
ZOCA2023-46800	TOP230131	WT	WT	WT	WT	WT	MUT
ZOCA2023-46801	TOP230132	WT	WT	WT	WT	WT	WT
ZOCA2023-46802	TOP230133	WT	WT	WT	WT	WT	MUT
ZOCA2023-46803	TOP230134	WT	WT	WT	WT	WT	WT
ZOCA2023-46804	TOP230135	WT	WT	WT	WT	WT	MUT
ZOCA2023-46805	TOP230137	WT	WT	WT	MUT	WT	WT
ZOCA2023-46806	TOP230138	WT	WT	WT	WT	WT	WT
ZOCA2023-46807	TOP230139	WT	WT	WT	WT	WT	WT
ZOCA2023-46808	TOP230140	WT	WT	WT	WT	WT	WT

Dr Christiaan Labuschagne
Genomics Manager

4/13/2023

Date

****Disclaimer**

Whatever is contained in this report is subject to the following:

Inqaba Biotechnical Industries Pty Ltd and the divisions thereof (Registration number: 2001/011245/07) accepts that the biological specimen(s) provided, originates from the relevant animal(s) as indicated on the relevant specimen(s) provided;

It is the responsibility of the client that all biological samples are available or has previously been submitted, and corresponds with all requested samples listed on the sample submission form. Inqaba Biotechnical Industries Pty Ltd and the divisions thereof does not accept responsibility for the effect of any absent samples on the analysis results;

Inqaba Biotechnical Industries Pty Ltd and the divisions thereof accepts that all genetic profiles and/or samples from external sources are correctly labelled and accurate;

Inqaba Biotechnical Industries Pty Ltd and the divisions thereof shall not be responsible for human and/or technical errors that could not have been foreseen;

This document is solely for the use of the addressee and only in connection for the purpose set out in this document. Inqaba Biotechnical Industries Pty Ltd and the divisions thereof do not assume liability or responsibility to any third party to which this document is disclosed or otherwise made available;

Nothing in this document should be construed as advice to proceed or not to proceed with any specific course of action, as it was not prepared for that purpose;

The DNA profile is based on a preliminary marker panel that is subject to modification pending additional genetic information;

It is the sender's responsibility to obtain permits when sending samples where required;

Inqaba Biotechnical Industries Pty Ltd and the divisions thereof reserves the right to decline testing of samples;

No guarantees are made with regards to turn-around time and results, and no liability will be accepted for any delays.



ZooOmics™ is a division of Inqaba Biotechnical Industries Pty Ltd
info@ZooOmics.co.za
525 Justice Mahomed Str, Muckleneuk, Pretoria 0002
PO Box 14356, Hatfield, Pretoria 0028

CATTLE MUTATION ANALYSIS REPORT

Order Information			
Name:	Wilzak Boerdery	Print Date:	4/28/2023
Telephone No.:	083 985 5815	Date received:	4/25/2023
E-mail address:	elisca@wilzak.co.za	No. samples:	5

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)					
		Q204X		Nt821		F94L	
ZOCA2023-47608	755	WT	WT	WT	WT	WT	WT
ZOCA2023-47609	TOP230141	WT	WT	WT	WT	WT	MUT
ZOCA2023-47610	TOP230142	WT	WT	WT	WT	WT	WT
ZOCA2023-47611	TOP230143	WT	WT	WT	WT	WT	WT
ZOCA2023-47612	TOP230144	WT	WT	WT	WT	WT	WT

Dr Christiaan Labuschagne
Genomics Manager

4/28/2023
Date

****Disclaimer**

Whatever is contained in this report is subject to the following:

Inqaba Biotechnical Industries Pty Ltd and the divisions thereof (Registration number: 2001/011245/07) accepts that the biological specimen(s) provided, originates from the relevant animal(s) as indicated on the relevant specimen(s) provided;

It is the responsibility of the client that all biological samples are available or has previously been submitted, and corresponds with all requested samples listed on the sample submission form. Inqaba Biotechnical Industries Pty Ltd and the divisions thereof does not accept responsibility for the effect of any absent samples on the analysis results;

Inqaba Biotechnical Industries Pty Ltd and the divisions thereof accepts that all genetic profiles and/or samples from external sources are correctly labelled and accurate;

Inqaba Biotechnical Industries Pty Ltd and the divisions thereof shall not be responsible for human and/or technical errors that could not have been foreseen;

This document is solely for the use of the addressee and only in connection for the purpose set out in this document. Inqaba Biotechnical Industries Pty Ltd and the divisions thereof do not assume liability or

responsibility to any third party to which this document is disclosed or otherwise made available;

Nothing in this document should be construed as advice to proceed or not to proceed with any specific course of action, as it was not prepared for that purpose;

The DNA profile is based on a preliminary marker panel that is subject to modification pending additional genetic information;

It is the sender's responsibility to obtain permits when sending samples where required;

Inqaba Biotechnical Industries Pty Ltd and the divisions thereof reserves the right to decline testing of samples;

No guarantees are made with regards to turn-around time and results, and no liability will be accepted for any delays.



ZooOmics™ is a division of Inqaba Biotechnical Industries Pty Ltd
info@ZooOmics.co.za
525 Justice Mahomed Str, Muckleneuk, Pretoria 0002
PO Box 14356, Hatfield, Pretoria 0028

CATTLE MUTATION ANALYSIS REPORT

Order Information			
Name:	Wilzak Boerdery	Print Date:	5/30/2023
Telephone No.:	083 985 5815	Date received:	5/24/2023
E-mail address:	elisca@wilzak.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)					
		Q204X		Nt821		F94L	
ZOCA2023-49286	TOP230145	WT	WT	WT	WT	WT	WT
ZOCA2023-49287	TOP230146	WT	WT	WT	MUT	WT	WT

Dr Christiaan Labuschagne
Genomics Manager

5/30/2023

Date

**Disclaimer

Whatever is contained in this report is subject to the following:

Inqaba Biotechnical Industries Pty Ltd and the divisions thereof (Registration number: 2001/011245/07) accepts that the biological specimen(s) provided, originates from the relevant animal(s) as indicated on the relevant specimen(s) provided;

It is the responsibility of the client that all biological samples are available or has previously been submitted, and corresponds with all requested samples listed on the sample submission form. Inqaba Biotechnical Industries Pty Ltd and the divisions thereof does not accept responsibility for the effect of any absent samples on the analysis results;

Inqaba Biotechnical Industries Pty Ltd and the divisions thereof accepts that all genetic profiles and/or samples from external sources are correctly labelled and accurate;

Inqaba Biotechnical Industries Pty Ltd and the divisions thereof shall not be responsible for human and/or technical errors that could not have been foreseen;

This document is solely for the use of the addressee and only in connection for the purpose set out in this document. Inqaba Biotechnical Industries Pty Ltd and the divisions thereof do not assume liability or responsibility to any third party to which this document is disclosed or otherwise made available;

Nothing in this document should be construed as advice to proceed or not to proceed with any specific course of action, as it was not prepared for that purpose;

The DNA profile is based on a preliminary marker panel that is subject to modification pending additional

genetic information;

It is the sender's responsibility to obtain permits when sending samples where required;

Inqaba Biotechnical Industries Pty Ltd and the divisions thereof reserves the right to decline testing of samples;

No guarantees are made with regards to turn-around time and results, and no liability will be accepted for any delays.



ZooOmics™ is a division of Inqaba Biotechnical Industries Pty Ltd
info@ZooOmics.co.za
525 Justice Mahomed Str, Muckleneuk, Pretoria 0002
PO Box 14356, Hatfield, Pretoria 0028

CATTLE MUTATION ANALYSIS REPORT

Order Information			
Name:	Wilzak Boerdery	Print Date:	6/19/2023
Telephone No.:	(83) 985-5815	Date received:	6/12/2023
E-mail address:	elisca@wilzak.co.za	No. samples:	1

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)					
		Q204X		Nt821		F94L	
ZOCA2023/50471	TOP230147	WT	WT	WT	WT	WT	WT

Dr Christiaan Labuschagne
Genomics Manager

6/19/2023

Date

**Disclaimer

Whatever is contained in this report is subject to the following:

Inqaba Biotechnical Industries Pty Ltd and the divisions thereof (Registration number: 2001/011245/07) accepts that the biological specimen(s) provided, originates from the relevant animal(s) as indicated on the relevant specimen(s) provided;

It is the responsibility of the client that all biological samples are available or has previously been submitted, and corresponds with all requested samples listed on the sample submission form. Inqaba Biotechnical Industries Pty Ltd and the divisions thereof does not accept responsibility for the effect of any absent samples on the analysis results;

Inqaba Biotechnical Industries Pty Ltd and the divisions thereof accepts that all genetic profiles and/or samples from external sources are correctly labelled and accurate;

Inqaba Biotechnical Industries Pty Ltd and the divisions thereof shall not be responsible for human and/or technical errors that could not have been foreseen;

This document is solely for the use of the addressee and only in connection for the purpose set out in this document. Inqaba Biotechnical Industries Pty Ltd and the divisions thereof do not assume liability or responsibility to any third party to which this document is disclosed or otherwise made available;

Nothing in this document should be construed as advice to proceed or not to proceed with any specific course of action, as it was not prepared for that purpose;

The DNA profile is based on a preliminary marker panel that is subject to modification pending additional genetic information;

It is the sender's responsibility to obtain permits when sending samples where required;
Inqaba Biotechnical Industries Pty Ltd and the divisions thereof reserves the right to decline testing of samples;

No guarantees are made with regards to turn-around time and results, and no liability will be accepted for any delays.



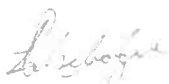
ZooOmics™ is a division of Inqaba Biotechnical Industries Pty Ltd
 info@ZooOmics.co.za
 525 Justice Mahomed Str, Muckleneuk, Pretoria 0002
 PO Box 14356, Hatfield, Pretoria 0028

CATTLE MUTATION ANALYSIS REPORT

Order Information			
Name:	Wilzak Boerdery	Print Date:	2023/09/13
Telephone No.:	083 985 5815	Date received:	2023/08/21
E-mail address:	elisca@wilzak.co.za	No. samples:	70

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)					
		Q204X		Nt821		F94L	
ZOCA2023-53806	TOP230149	WT	WT	WT	WT	WT	WT
ZOCA2023-53807	TOP230150	WT	WT	WT	WT	WT	WT
ZOCA2023-53808	TOP230151	WT	WT	WT	WT	WT	WT
ZOCA2023-53809	TOP230152	WT	WT	WT	WT	WT	WT
ZOCA2023-53810	TOP230153	WT	WT	WT	WT	WT	WT
ZOCA2023-53811	TOP230154	WT	WT	WT	WT	WT	WT
ZOCA2023-53812	TOP230155	WT	WT	WT	MUT	WT	WT
ZOCA2023-53813	TOP230156	WT	WT	WT	MUT	WT	WT
ZOCA2023-53814	TOP230158	WT	WT	WT	WT	WT	WT
ZOCA2023-53815	TOP230159	WT	WT	WT	WT	WT	WT
ZOCA2023-53816	TOP230160	WT	WT	WT	WT	WT	WT
ZOCA2023-53817	TOP230161	WT	WT	WT	WT	WT	WT
ZOCA2023-53818	TOP230162	WT	WT	WT	WT	WT	WT
ZOCA2023-53819	TOP230163	WT	WT	WT	WT	WT	WT
ZOCA2023-53820	TOP230164	WT	WT	WT	WT	WT	WT
ZOCA2023-53821	TOP230165	WT	WT	WT	WT	WT	WT
ZOCA2023-53822	TOP230166	WT	WT	WT	WT	WT	WT
ZOCA2023-53823	TOP230167	WT	WT	WT	WT	WT	WT
ZOCA2023-53824	TOP230168	WT	WT	WT	WT	WT	WT
ZOCA2023-53825	TOP230169	WT	WT	WT	WT	WT	WT
ZOCA2023-53826	TOP230170	WT	WT	WT	WT	WT	WT
ZOCA2023-53827	TOP230171	WT	WT	WT	WT	WT	WT
ZOCA2023-53828	TOP230172	WT	WT	WT	WT	WT	WT
ZOCA2023-53829	TOP230173	WT	WT	WT	WT	WT	MUT
ZOCA2023-53830	TOP230174	WT	WT	WT	WT	WT	MUT
ZOCA2023-53831	TOP230175	WT	WT	WT	MUT	WT	WT
ZOCA2023-53832	TOP230176	WT	WT	WT	WT	WT	WT
ZOCA2023-53833	TOP230177	WT	WT	WT	WT	WT	WT
ZOCA2023-53834	TOP230178	WT	WT	WT	WT	WT	MUT
ZOCA2023-53835	TOP230179	WT	WT	WT	WT	WT	WT

Lab No.	Sample ID	Double Muscling (Myostatin)					
		Q204X		Nt821		F94L	
ZOCA2023-53836	TOP230180	WT	WT	WT	WT	WT	WT
ZOCA2023-53837	TOP230181	WT	WT	WT	MUT	WT	WT
ZOCA2023-53838	TOP230182	WT	WT	WT	WT	WT	WT
ZOCA2023-53839	TOP230183	WT	WT	WT	WT	WT	WT
ZOCA2023-53840	TOP230184	WT	WT	WT	WT	WT	WT
ZOCA2023-53841	TOP230185	WT	WT	WT	WT	WT	WT
ZOCA2023-53842	TOP230186	WT	WT	WT	WT	WT	WT
ZOCA2023-53843	TOP230187	WT	WT	WT	WT	WT	WT
ZOCA2023-53844	TOP230188	WT	WT	WT	WT	WT	MUT
ZOCA2023-53845	TOP230189	WT	WT	WT	WT	WT	WT
ZOCA2023-53846	TOP230190	WT	WT	WT	WT	WT	WT
ZOCA2023-53847	TOP230191	WT	WT	WT	WT	WT	WT
ZOCA2023-53848	TOP230192	WT	WT	WT	MUT	WT	WT
ZOCA2023-53849	TOP230193	WT	WT	WT	WT	WT	WT
ZOCA2023-53850	TOP230194	WT	WT	WT	WT	WT	WT
ZOCA2023-53851	TOP230195	WT	WT	WT	WT	WT	WT
ZOCA2023-53852	TOP230196	WT	WT	WT	WT	WT	WT
ZOCA2023-53853	TOP230197	WT	WT	WT	WT	WT	WT
ZOCA2023-53854	TOP230198	WT	WT	WT	MUT	WT	WT
ZOCA2023-53855	TOP230199	WT	WT	WT	WT	WT	MUT
ZOCA2023-53856	TOP230200	WT	WT	WT	WT	WT	MUT
ZOCA2023-53857	TOP230201	WT	WT	WT	WT	WT	WT
ZOCA2023-53858	TOP230202	WT	WT	WT	WT	WT	WT
ZOCA2023-53859	TOP230204	WT	WT	WT	WT	WT	MUT
ZOCA2023-53860	TOP230205	WT	WT	WT	WT	WT	MUT
ZOCA2023-53861	TOP230206	WT	WT	WT	MUT	WT	WT
ZOCA2023-53862	TOP230207	WT	WT	WT	WT	WT	WT
ZOCA2023-53863	TOP230208	WT	WT	WT	WT	WT	WT
ZOCA2023-53864	TOP230209	WT	WT	WT	WT	WT	WT
ZOCA2023-53865	TOP230210	WT	WT	WT	WT	WT	MUT
ZOCA2023-53866	TOP230211	WT	WT	WT	WT	WT	WT
ZOCA2023-53867	TOP230212	WT	WT	WT	WT	WT	MUT
ZOCA2023-53868	TOP230213	WT	WT	WT	WT	WT	WT
ZOCA2023-53869	TOP230214	WT	WT	WT	MUT	WT	WT
ZOCA2023-53870	TOP230215	WT	WT	WT	WT	WT	MUT
ZOCA2023-53871	TOP230216	WT	WT	WT	WT	WT	WT
ZOCA2023-53872	TOP230217	WT	WT	WT	WT	WT	MUT
ZOCA2023-53873	TOP230218	WT	WT	WT	WT	WT	MUT
ZOCA2023-53874	TOP230219	WT	WT	WT	WT	WT	WT
ZOCA2023-53875	TOP230220	WT	WT	WT	WT	WT	WT



Dr Christiaan Labuschagne
Genomics Manager

2023/09/13

Date

****Disclaimer**

Whatever is contained in this report is subject to the following:

Inqaba Biotechnical Industries Pty Ltd and the divisions thereof (Registration number: 2001/011245/07) accepts that the biological specimen(s) provided, originates from the relevant animal(s) as indicated on

Lab No.	Sample ID	Double Muscling (Myostatin)		
		Q204X	Ni821	F94L

the relevant specimen(s) provided;

It is the responsibility of the client that all biological samples are available or has previously been submitted, and corresponds with all requested samples listed on the sample submission form. Inqaba Biotechnical Industries Pty Ltd and the divisions thereof does not accept responsibility for the effect of any absent samples on the analysis results;

Inqaba Biotechnical Industries Pty Ltd and the divisions thereof accepts that all genetic profiles and/or samples from external sources are correctly labelled and accurate;

Inqaba Biotechnical Industries Pty Ltd and the divisions thereof shall not be responsible for human and/or technical errors that could not have been foreseen;

This document is solely for the use of the addressee and only in connection for the purpose set out in this document. Inqaba Biotechnical Industries Pty Ltd and the divisions thereof do not assume liability or responsibility to any third party to which this document is disclosed or otherwise made available;

Nothing in this document should be construed as advice to proceed or not to proceed with any specific course of action, as it was not prepared for that purpose;

The DNA profile is based on a preliminary marker panel that is subject to modification pending additional genetic information;

It is the sender's responsibility to obtain permits when sending samples where required;

Inqaba Biotechnical Industries Pty Ltd and the divisions thereof reserves the right to decline testing of samples;

No guarantees are made with regards to turn-around time and results, and no liability will be accepted for any delays.



ZooOmics™ is a division of Inqaba Biotechnical Industries Pty Ltd
info@ZooOmics.co.za
525 Justice Mahomed Str, Muckleneuk, Pretoria 0002
PO Box 14356, Hatfield, Pretoria 0028

CATTLE MUTATION ANALYSIS REPORT

Order Information			
Name:	Wilzak Boerdery	Print Date:	2023/09/19
Telephone No.:	(83) 985-5815	Date received:	2023/09/01
E-mail address:	elisca@wilzak.co.za	No. samples:	21

Description of Procedure							
Molecular genotyping for Double Muscling (Myostatin: F94L, Q204X and Nf821). 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)					
		Q204X		Nf821		F94L	
ZOCA2023/55720	TOP230221	WT	WT	WT	WT	WT	WT
ZOCA2023/55721	TOP230222	WT	WT	WT	WT	WT	MUT
ZOCA2023/55722	TOP230223	WT	WT	WT	WT	WT	WT
ZOCA2023/55723	TOP230224	WT	WT	WT	WT	WT	WT
ZOCA2023/55724	TOP230225	WT	WT	WT	WT	WT	WT
ZOCA2023/55725	TOP230226	WT	WT	WT	WT	WT	WT
ZOCA2023/55726	TOP230227	WT	WT	WT	WT	WT	WT
ZOCA2023/55727	TOP230228	WT	WT	WT	WT	WT	WT
ZOCA2023/55728	TOP230229	WT	WT	WT	WT	WT	MUT
ZOCA2023/55729	TOP230230	WT	WT	WT	MUT	WT	WT
ZOCA2023/55730	TOP230232	WT	WT	WT	WT	WT	WT
ZOCA2023/55731	TOP230233	WT	WT	WT	WT	WT	MUT
ZOCA2023/55732	TOP230234	WT	WT	WT	WT	WT	MUT
ZOCA2023/55733	TOP230235	WT	WT	WT	MUT	WT	WT
ZOCA2023/55734	TOP230236	WT	WT	WT	WT	WT	WT
ZOCA2023/55735	TOP230237	WT	WT	WT	WT	WT	WT
ZOCA2023/55736	TOP230238	WT	WT	WT	MUT	WT	WT
ZOCA2023/55737	TOP230239	WT	WT	WT	WT	WT	WT
ZOCA2023/55738	TOP230240	WT	WT	WT	WT	WT	WT
ZOCA2023/55739	TOP230241	WT	WT	WT	WT	WT	WT
ZOCA2023/55740	TOP230242	WT	WT	WT	MUT	WT	WT

Dr Christiaan Labuschagne
Genomics Manager

2023/09/19

Date

****Disclaimer**

Whatever is contained in this report is subject to the following:

Inqaba Biotechnical Industries Pty Ltd and the divisions thereof (Registration number: 2001/011245/07) accepts that the biological specimen(s) provided, originates from the relevant animal(s) as indicated on the relevant specimen(s) provided;

It is the responsibility of the client that all biological samples are available or has previously been submitted,

and corresponds with all requested samples listed on the sample submission form. Inqaba Biotechnical Industries Pty Ltd and the divisions thereof does not accept responsibility for the effect of any absent samples on the analysis results;

Inqaba Biotechnical Industries Pty Ltd and the divisions thereof accepts that all genetic profiles and/or samples from external sources are correctly labelled and accurate;

Inqaba Biotechnical Industries Pty Ltd and the divisions thereof shall not be responsible for human and/or technical errors that could not have been foreseen;

This document is solely for the use of the addressee and only in connection for the purpose set out in this document. Inqaba Biotechnical Industries Pty Ltd and the divisions thereof do not assume liability or responsibility to any third party to which this document is disclosed or otherwise made available;

Nothing in this document should be construed as advice to proceed or not to proceed with any specific course of action, as it was not prepared for that purpose;

The DNA profile is based on a preliminary marker panel that is subject to modification pending additional genetic information;

It is the sender's responsibility to obtain permits when sending samples where required;

Inqaba Biotechnical Industries Pty Ltd and the divisions thereof reserves the right to decline testing of samples;

No guarantees are made with regards to turn-around time and results, and no liability will be accepted for any delays.



ZooOmics™ is a division of Inqaba Biotechnical Industries Pty Ltd
info@ZooOmics.co.za
525 Justice Mahomed Str, Muckleneuk, Pretoria 0002
PO Box 14356, Hatfield, Pretoria 0028

CATTLE MUTATION ANALYSIS REPORT

Order Information

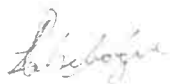
Name:	Wilzak Boerdery	Print Date:	10/11/2023
Telephone No.:	083 985 5815	Date received:	9/28/2023
E-mail address:	elisca@wilzak.co.za	No. samples:	54

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)					
		Q204X		Nt821		F94L	
ZOCA2023-57146	TOP230244	WT	WT	WT	WT	WT	WT
ZOCA2023-57147	TOP230245	WT	WT	WT	WT	WT	WT
ZOCA2023-57148	TOP230246	WT	WT	WT	WT	WT	MUT
ZOCA2023-57149	TOP230247	WT	WT	WT	WT	WT	MUT
ZOCA2023-57150	TOP230248	WT	WT	WT	WT	WT	WT
ZOCA2023-57151	TOP230249	WT	WT	WT	MUT	WT	WT
ZOCA2023-57152	TOP230250	WT	WT	WT	WT	WT	WT
ZOCA2023-57153	TOP230251	WT	WT	WT	WT	WT	MUT
ZOCA2023-57154	TOP230252	WT	WT	WT	WT	WT	WT
ZOCA2023-57155	TOP230253	WT	WT	WT	WT	WT	WT
ZOCA2023-57156	TOP230254	WT	WT	WT	WT	WT	WT
ZOCA2023-57157	TOP230255	WT	WT	WT	WT	WT	WT
ZOCA2023-57158	TOP230256	WT	WT	WT	WT	WT	WT
ZOCA2023-57159	TOP230257	WT	WT	WT	WT	WT	MUT
ZOCA2023-57160	TOP230259	WT	WT	WT	WT	WT	WT
ZOCA2023-57161	TOP230260	WT	WT	WT	WT	WT	WT
ZOCA2023-57162	TOP230261	WT	WT	WT	WT	WT	WT
ZOCA2023-57163	TOP230262	WT	WT	WT	WT	WT	WT
ZOCA2023-57164	TOP230263	WT	WT	WT	WT	WT	WT
ZOCA2023-57165	TOP230264	WT	WT	WT	WT	WT	WT
ZOCA2023-57166	TOP230265	WT	WT	WT	WT	WT	MUT
ZOCA2023-57167	TOP230266	WT	WT	WT	WT	WT	WT
ZOCA2023-57168	TOP230267	WT	WT	WT	WT	WT	WT
ZOCA2023-57169	TOP230268	WT	WT	WT	WT	WT	WT
ZOCA2023-57170	TOP230269	WT	WT	WT	WT	WT	WT
ZOCA2023-57171	TOP230270	WT	WT	WT	WT	WT	WT
ZOCA2023-57172	TOP230271	WT	WT	WT	WT	WT	WT
ZOCA2023-57173	TOP230272	WT	WT	WT	WT	WT	MUT
ZOCA2023-57174	TOP230273	WT	WT	WT	WT	WT	WT
ZOCA2023-57175	TOP230274	WT	WT	WT	WT	WT	WT

Lab No.	Sample ID	Double Muscling (Myostatin)					
		Q204X		N1821		F94L	
ZOCA2023-57176	TOP230275	WT	WT	WT	WT	WT	WT
ZOCA2023-57177	TOP230276	WT	WT	WT	WT	WT	WT
ZOCA2023-57178	TOP230277	WT	WT	WT	WT	WT	WT
ZOCA2023-57179	TOP230278	WT	WT	WT	WT	WT	WT
ZOCA2023-57180	TOP230279	WT	WT	WT	WT	WT	MUT
ZOCA2023-57181	TOP230280	WT	WT	WT	WT	WT	MUT
ZOCA2023-57182	TOP230281	WT	WT	WT	WT	WT	WT
ZOCA2023-57183	TOP230282	WT	WT	WT	WT	WT	MUT
ZOCA2023-57184	TOP230283	WT	WT	WT	WT	WT	WT
ZOCA2023-57185	TOP230284	WT	WT	WT	WT	WT	WT
ZOCA2023-57186	TOP230285	WT	WT	WT	WT	WT	WT
ZOCA2023-57187	TOP230286	WT	WT	WT	WT	WT	WT
ZOCA2023-57188	TOP230287	WT	WT	WT	WT	WT	WT
ZOCA2023-57189	TOP230288	WT	WT	WT	WT	WT	MUT
ZOCA2023-57190	TOP230289	WT	WT	WT	WT	WT	WT
ZOCA2023-57191	TOP230290	WT	WT	WT	WT	WT	WT
ZOCA2023-57192	TOP230291	WT	WT	WT	WT	WT	WT
ZOCA2023-57193	TOP230292	WT	WT	WT	WT	WT	WT
ZOCA2023-57194	TOP230293	WT	WT	WT	WT	WT	MUT
ZOCA2023-57195	TOP230294	WT	WT	WT	WT	WT	WT
ZOCA2023-57196	TOP230295	WT	WT	WT	WT	WT	WT
ZOCA2023-57197	TOP230296	WT	WT	WT	WT	WT	WT
ZOCA2023-57198	TOP230297	WT	WT	WT	WT	WT	WT
ZOCA2023-57199	TOP230298	WT	WT	WT	WT	WT	WT



Dr Christiaan Labuschagne
Genomics Manager

10/11/2023

Date

****Disclaimer**

Whatever is contained in this report is subject to the following:

Inqaba Biotechnical Industries Pty Ltd and the divisions thereof (Registration number: 2001/011245/07) accepts that the biological specimen(s) provided, originates from the relevant animal(s) as indicated on the relevant specimen(s) provided;

It is the responsibility of the client that all biological samples are available or has previously been submitted, and corresponds with all requested samples listed on the sample submission form. Inqaba Biotechnical Industries Pty Ltd and the divisions thereof does not accept responsibility for the effect of any absent samples on the analysis results;

Inqaba Biotechnical Industries Pty Ltd and the divisions thereof accepts that all genetic profiles and/or samples from external sources are correctly labelled and accurate;

Inqaba Biotechnical Industries Pty Ltd and the divisions thereof shall not be responsible for human and/or technical errors that could not have been foreseen;

This document is solely for the use of the addressee and only in connection for the purpose set out in this document. Inqaba Biotechnical Industries Pty Ltd and the divisions thereof do not assume liability or responsibility to any third party to which this document is disclosed or otherwise made available;

Nothing in this document should be construed as advice to proceed or not to proceed with any specific course of action, as it was not prepared for that purpose;

The DNA profile is based on a preliminary marker panel that is subject to modification pending additional

Lab No.	Sample ID	Double Muscling (Myostatin)		
		Q204X	Nt821	F94L

genetic information;

It is the sender's responsibility to obtain permits when sending samples where required;

Inqaba Biotechnical Industries Pty Ltd and the divisions thereof reserves the right to decline testing of samples;

No guarantees are made with regards to turn-around time and results, and no liability will be accepted for any delays.



ZooOmics™ is a division of Inqaba Biotechnical Industries Pty Ltd
info@ZooOmics.co.za
525 Justice Mahomed Str, Muckleneuk, Pretoria 0002
PO Box 14356, Hatfield, Pretoria 0028

CATTLE MUTATION ANALYSIS REPORT

Order Information

Name:	Wilzak Boerdery	Print Date:	10/13/2023
Telephone No.:	(83) 985-5815	Date received:	10/9/2023
E-mail address:	elisca@wilzak.co.za	No. samples:	22

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)					
		Q204X		Nt821		F94L	
ZOCA2023/57965	TOP230299	WT	WT	WT	WT	WT	WT
ZOCA2023/57966	TOP230300	WT	WT	WT	WT	WT	WT
ZOCA2023/57967	TOP230301	WT	WT	WT	WT	WT	WT
ZOCA2023/57968	TOP230302	WT	WT	WT	WT	WT	MUT
ZOCA2023/57969	TOP230303	WT	WT	WT	WT	WT	MUT
ZOCA2023/57970	TOP230304	WT	WT	WT	WT	WT	WT
ZOCA2023/57971	TOP230305	WT	WT	WT	WT	WT	WT
ZOCA2023/57972	TOP230306	WT	WT	WT	MUT	WT	WT
ZOCA2023/57973	TOP230307	WT	WT	WT	WT	WT	WT
ZOCA2023/57974	TOP230308	WT	WT	WT	WT	WT	WT
ZOCA2023/57975	TOP230309	WT	WT	WT	WT	WT	WT
ZOCA2023/57976	TOP230310	WT	WT	WT	WT	WT	MUT
ZOCA2023/57977	TOP230311	WT	WT	WT	WT	WT	WT
ZOCA2023/57978	TOP230312	WT	WT	WT	WT	WT	WT
ZOCA2023/57979	TOP230313	WT	WT	WT	WT	WT	WT
ZOCA2023/57980	TOP230314	WT	WT	WT	WT	WT	WT
ZOCA2023/57981	TOP230315	WT	WT	WT	WT	WT	WT
ZOCA2023/57982	TOP230316	WT	WT	WT	WT	WT	WT
ZOCA2023/57983	TOP230317	WT	WT	WT	WT	WT	WT
ZOCA2023/57984	TOP230318	WT	WT	WT	WT	WT	WT
ZOCA2023/57985	TOP230319	WT	WT	WT	WT	WT	MUT
ZOCA2023/57986	TOP230320	WT	WT	WT	WT	WT	WT

Dr Christiaan Labuschagne
Genomics Manager

10/13/2023

Date

****Disclaimer**

Whatever is contained in this report is subject to the following:

Inqaba Biotechnical Industries Pty Ltd and the divisions thereof (Registration number: 2001/011245/07) accepts that the biological specimen(s) provided, originates from the relevant animal(s) as indicated on the relevant specimen(s) provided;

It is the responsibility of the client that all biological samples are available or has previously been submitted, and corresponds with all requested samples listed on the sample submission form. Inqaba Biotechnical Industries Pty Ltd and the divisions thereof does not accept responsibility for the effect of any absent samples on the analysis results;

Inqaba Biotechnical Industries Pty Ltd and the divisions thereof accepts that all genetic profiles and/or samples from external sources are correctly labelled and accurate;

Inqaba Biotechnical Industries Pty Ltd and the divisions thereof shall not be responsible for human and/or technical errors that could not have been foreseen;

This document is solely for the use of the addressee and only in connection for the purpose set out in this document. Inqaba Biotechnical Industries Pty Ltd and the divisions thereof do not assume liability or responsibility to any third party to which this document is disclosed or otherwise made available;

Nothing in this document should be construed as advice to proceed or not to proceed with any specific course of action, as it was not prepared for that purpose;

The DNA profile is based on a preliminary marker panel that is subject to modification pending additional genetic information;

It is the sender's responsibility to obtain permits when sending samples where required;

Inqaba Biotechnical Industries Pty Ltd and the divisions thereof reserves the right to decline testing of samples;

No guarantees are made with regards to turn-around time and results, and no liability will be accepted for any delays.



ZooOmics™ is a division of Inqaba Biotechnical Industries Pty Ltd
info@ZooOmics.co.za
525 Justice Mahomed Str, Muckleneuk, Pretoria 0002
PO Box 14356, Hatfield, Pretoria 0028

CATTLE MUTATION ANALYSIS REPORT

Order Information

Name:	Wilzak Boerdery	Print Date:	2023/11/22
Telephone No.:	0839855815	Date received:	2023/11/14
E-mail address:	elisca@wilzak.co.za	No. samples:	12

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)					
		Q204X		Nt821		F94L	
ZOCA2023/59994	TOP230321	WT	WT	WT	WT	WT	WT
ZOCA2023/59995	TOP230322	WT	WT	WT	WT	WT	WT
ZOCA2023/59996	TOP230323	WT	WT	WT	WT	WT	WT
ZOCA2023/59997	TOP230324	WT	WT	WT	WT	WT	WT
ZOCA2023/59998	TOP230325	WT	WT	WT	WT	WT	WT
ZOCA2023/59999	TOP230326	WT	WT	WT	WT	WT	WT
ZOCA2023/60000	TOP230327	WT	WT	WT	WT	WT	WT
ZOCA2023/60001	TOP230328	WT	WT	WT	WT	WT	WT
ZOCA2023/60002	TOP230329	WT	WT	WT	WT	WT	WT
ZOCA2023/60003	TOP230330	WT	WT	WT	WT	WT	WT
ZOCA2023/60004	TOP230331	WT	WT	WT	WT	WT	WT
ZOCA2023/60005	TOP230332	WT	WT	WT	WT	WT	MUT

Dr Christiaan Labuschagne
Genomics Manager

2023/11/22

Date

**Disclaimer

Whatever is contained in this report is subject to the following:

Inqaba Biotechnical Industries Pty Ltd and the divisions thereof (Registration number: 2001/011245/07) accepts that the biological specimen(s) provided, originates from the relevant animal(s) as indicated on the relevant specimen(s) provided;

It is the responsibility of the client that all biological samples are available or has previously been submitted, and corresponds with all requested samples listed on the sample submission form. Inqaba Biotechnical Industries Pty Ltd and the divisions thereof does not accept responsibility for the effect of any absent samples on the analysis results;

Inqaba Biotechnical Industries Pty Ltd and the divisions thereof accepts that all genetic profiles and/or samples from external sources are correctly labelled and accurate;

Inqaba Biotechnical Industries Pty Ltd and the divisions thereof shall not be responsible for human and/or technical errors that could not have been foreseen;

This document is solely for the use of the addressee and only in connection for the purpose set out in this document. Inqaba Biotechnical Industries Pty Ltd and the divisions thereof do not assume liability or

responsibility to any third party to which this document is disclosed or otherwise made available;

Nothing in this document should be construed as advice to proceed or not to proceed with any specific course of action, as it was not prepared for that purpose;

The DNA profile is based on a preliminary marker panel that is subject to modification pending additional genetic information;

It is the sender's responsibility to obtain permits when sending samples where required;

Inqaba Biotechnical Industries Pty Ltd and the divisions thereof reserves the right to decline testing of samples;

No guarantees are made with regards to turn-around time and results, and no liability will be accepted for any delays.



ZooOmics™ is a division of Inqaba Biotechnical Industries Pty Ltd
info@ZooOmics.co.za
525 Justice Mahomed Str, Muckleneuk, Pretoria 0002
PO Box 14356, Hatfield, Pretoria 0028

CATTLE MUTATION ANALYSIS REPORT

Order Information

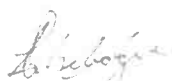
Name:	Wilzak Boerdery	Print Date:	12/4/2023
Telephone No.:	(83) 985-5815	Date received:	11/28/2023
E-mail address:	elisca@wilzak.co.za	No. samples:	45

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)					
		Q204X		Nt821		F94L	
ZOCA2023-60685	TOP230333	WT	WT	WT	WT	WT	WT
ZOCA2023-60686	TOP230334	WT	WT	WT	WT	WT	WT
ZOCA2023-60687	TOP230335	WT	WT	WT	WT	WT	WT
ZOCA2023-60688	TOP230336	WT	WT	WT	WT	WT	WT
ZOCA2023-60689	TOP230337	WT	WT	WT	WT	WT	WT
ZOCA2023-60690	TOP230338	WT	WT	WT	WT	WT	WT
ZOCA2023-60691	TOP230339	WT	WT	WT	WT	WT	WT
ZOCA2023-60692	TOP230340	WT	WT	WT	WT	WT	WT
ZOCA2023-60693	TOP230341	WT	WT	WT	WT	WT	WT
ZOCA2023-60694	TOP230342	WT	WT	WT	WT	WT	WT
ZOCA2023-60695	TOP230345	WT	WT	WT	WT	WT	WT
ZOCA2023-60696	TOP230346	WT	WT	WT	WT	WT	WT
ZOCA2023-60697	TOP230347	WT	WT	WT	WT	WT	WT
ZOCA2023-60698	TOP230348	WT	WT	WT	WT	WT	WT
ZOCA2023-60699	TOP230349	WT	WT	WT	WT	WT	WT
ZOCA2023-60700	TOP230351	WT	WT	WT	WT	WT	WT
ZOCA2023-60701	TOP230352	WT	WT	WT	WT	WT	WT
ZOCA2023-60702	TOP230353	WT	WT	WT	WT	WT	WT
ZOCA2023-60703	TOP230354	WT	WT	WT	WT	WT	MUT
ZOCA2023-60704	TOP230355	WT	WT	WT	MUT	WT	WT
ZOCA2023-60705	TOP230356	WT	WT	WT	WT	WT	MUT
ZOCA2023-60706	TOP230357	WT	WT	WT	WT	WT	WT
ZOCA2023-60707	TOP230358	WT	WT	WT	WT	WT	WT
ZOCA2023-60708	TOP230359	WT	WT	WT	WT	WT	WT
ZOCA2023-60709	TOP230360	WT	WT	WT	WT	WT	WT
ZOCA2023-60710	TOP230361	WT	WT	WT	WT	WT	WT
ZOCA2023-60711	TOP230362	WT	WT	WT	WT	WT	MUT
ZOCA2023-60712	TOP230363	WT	WT	WT	WT	WT	MUT
ZOCA2023-60713	TOP230365	WT	WT	WT	WT	WT	WT
ZOCA2023-60714	TOP230367	WT	WT	WT	WT	WT	WT

ZOCA2023-60715	TOP230368	WT	WT	WT	WT	WT	WT
ZOCA2023-60716	TOP230369	WT	WT	WT	WT	WT	WT
ZOCA2023-60717	TOP230370	WT	WT	WT	MUT	WT	WT
ZOCA2023-60718	TOP230371	WT	WT	WT	WT	WT	WT
ZOCA2023-60719	TOP230372	WT	WT	WT	WT	WT	WT
ZOCA2023-60720	TOP230373	WT	WT	WT	WT	WT	WT
ZOCA2023-60721	TOP230375	WT	WT	WT	WT	WT	WT
ZOCA2023-60722	TOP230376	WT	WT	WT	WT	WT	WT
ZOCA2023-60723	TOP230377	WT	WT	WT	WT	WT	MUT
ZOCA2023-60724	TOP230378	WT	WT	WT	WT	WT	WT
ZOCA2023-60725	TOP230379	WT	WT	WT	WT	WT	WT
ZOCA2023-60726	TOP230380	WT	WT	WT	WT	WT	WT
ZOCA2023-60727	TOP230381	WT	WT	WT	WT	WT	WT
ZOCA2023-60728	TOP230382	WT	WT	WT	WT	WT	WT
ZOCA2023-60729	TOP230383	WT	WT	WT	WT	WT	MUT



Dr Christiaan Labuschagne
Genomics Manager

12/4/2023

Date

****Disclaimer**

Whatever is contained in this report is subject to the following:

Inqaba Biotechnical Industries Pty Ltd and the divisions thereof (Registration number: 2001/011245/07) accepts that the biological specimen(s) provided, originates from the relevant animal(s) as indicated on the relevant specimen(s) provided;

It is the responsibility of the client that all biological samples are available or has previously been submitted, and corresponds with all requested samples listed on the sample submission form. Inqaba Biotechnical Industries Pty Ltd and the divisions thereof does not accept responsibility for the effect of any absent samples on the analysis results;

Inqaba Biotechnical Industries Pty Ltd and the divisions thereof accepts that all genetic profiles and/or samples from external sources are correctly labelled and accurate;

Inqaba Biotechnical Industries Pty Ltd and the divisions thereof shall not be responsible for human and/or technical errors that could not have been foreseen;

This document is solely for the use of the addressee and only in connection for the purpose set out in this document. Inqaba Biotechnical Industries Pty Ltd and the divisions thereof do not assume liability or responsibility to any third party to which this document is disclosed or otherwise made available;

Nothing in this document should be construed as advice to proceed or not to proceed with any specific course of action, as it was not prepared for that purpose;

The DNA profile is based on a preliminary marker panel that is subject to modification pending additional genetic information;

It is the sender's responsibility to obtain permits when sending samples where required;

Inqaba Biotechnical Industries Pty Ltd and the divisions thereof reserves the right to decline testing of samples;

No guarantees are made with regards to turn-around time and results, and no liability will be accepted for any delays.



CATTLE MUTATION ANALYSIS REPORT

Order Information			
Name:	Wilzak Boerdery	Print Date:	2024/01/11
Telephone No.:	(83) 985-5815	Date received:	2024/01/05
E-mail address:	elisca@wilzak.co.za	No. samples:	17

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)					
		Q204X		Nt821		F94L	
ZOCA2024-62513	TOP230384	WT	WT	WT	WT	WT	MUT
ZOCA2024-62514	TOP230385	WT	WT	WT	WT	WT	WT
ZOCA2024-62515	TOP230386	WT	WT	WT	WT	WT	MUT
ZOCA2024-62516	TOP230387	WT	WT	WT	WT	WT	WT
ZOCA2024-62517	TOP230388	WT	WT	WT	WT	WT	WT
ZOCA2024-62518	TOP230389	WT	WT	WT	WT	WT	WT
ZOCA2024-62519	TOP230390	WT	WT	WT	WT	WT	MUT
ZOCA2024-62520	TOP230391	WT	WT	WT	WT	WT	MUT
ZOCA2024-62521	TOP230392	WT	WT	WT	WT	WT	MUT
ZOCA2024-62522	TOP230394	WT	WT	WT	WT	WT	WT
ZOCA2024-62523	TOP230395	WT	WT	WT	WT	WT	MUT
ZOCA2024-62524	TOP230396	WT	WT	WT	WT	WT	WT
ZOCA2024-62525	TOP230397	WT	WT	WT	WT	WT	WT
ZOCA2024-62526	TOP230398	WT	WT	WT	WT	WT	WT
ZOCA2024-62527	TOP230399	WT	WT	WT	WT	WT	WT
ZOCA2024-62528	TOP230400	WT	WT	WT	WT	WT	WT
ZOCA2024-62529	TOP230401	WT	WT	WT	WT	WT	WT

Dr Christiaan Labuschagne
Genomics Manager

2024/01/11
Date

****Disclaimer**

Whatever is contained in this report is subject to the following:

Inqaba Biotechnical Industries Pty Ltd and the divisions thereof (Registration number: 2001/011245/07) accepts that the biological specimen(s) provided, originates from the relevant animal(s) as indicated on the relevant specimen(s) provided;

It is the responsibility of the client that all biological samples are available or has previously been submitted, and corresponds with all requested samples listed on the sample submission form. Inqaba Biotechnical Industries Pty Ltd and the divisions thereof does not accept responsibility for the effect of any absent samples on the analysis results;

Inqaba Biotechnical Industries Pty Ltd and the divisions thereof accepts that all genetic profiles and/or samples from external sources are correctly labelled and accurate;

Inqaba Biotechnical Industries Pty Ltd and the divisions thereof shall not be responsible for human and/or technical errors that could not have been foreseen;

This document is solely for the use of the addressee and only in connection for the purpose set out in this document. Inqaba Biotechnical Industries Pty Ltd and the divisions thereof do not assume liability or responsibility to any third party to which this document is disclosed or otherwise made available;

Nothing in this document should be construed as advice to proceed or not to proceed with any specific course of action, as it was not prepared for that purpose;

The DNA profile is based on a preliminary marker panel that is subject to modification pending additional genetic information;

It is the sender's responsibility to obtain permits when sending samples where required;

Inqaba Biotechnical Industries Pty Ltd and the divisions thereof reserves the right to decline testing of samples;

No guarantees are made with regards to turn-around time and results, and no liability will be accepted for any delays.



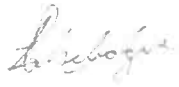
ZooOmics™ is a division of Inqaba Biotechnical Industries Pty Ltd
info@ZooOmics.co.za
525 Justice Mahomed Str, Muckleneuk, Pretoria 0002
PO Box 14356, Hatfield, Pretoria 0028

CATTLE MUTATION ANALYSIS REPORT

Order Information			
Name:	Wilzak Boerdery	Print Date:	3/26/2024
Telephone No.:	(83) 985-5815	Date received:	3/19/2024
E-mail address:	elisca@wilzak.co.za	No. samples:	41

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)					
		Q204X		Nt821		F94L	
ZOCA2024/67215	TOP240100	WT	WT	WT	WT	WT	WT
ZOCA2024/67216	TOP240101	WT	WT	WT	WT	WT	WT
ZOCA2024/67217	TOP240103	WT	WT	WT	WT	WT	MUT
ZOCA2024/67218	TOP240105	WT	WT	WT	WT	WT	MUT
ZOCA2024/67219	TOP240106	WT	WT	WT	WT	WT	MUT
ZOCA2024/67220	TOP240107	WT	WT	WT	WT	WT	WT
ZOCA2024/67221	TOP240108	WT	WT	WT	WT	WT	WT
ZOCA2024/67222	TOP240109	WT	WT	WT	MUT	WT	WT
ZOCA2024/67223	TOP240110	WT	WT	WT	WT	WT	MUT
ZOCA2024/67224	TOP240111	WT	WT	WT	WT	WT	WT
ZOCA2024/67225	TOP240112	WT	WT	WT	WT	WT	WT
ZOCA2024/67226	TOP240113	WT	WT	WT	MUT	WT	WT
ZOCA2024/67227	TOP240114	WT	WT	WT	MUT	WT	WT
ZOCA2024/67228	TOP240115	WT	WT	WT	WT	WT	WT
ZOCA2024/67229	TOP240117	WT	WT	WT	MUT	WT	MUT
ZOCA2024/67230	TOP240118	WT	WT	WT	WT	WT	WT
ZOCA2024/67231	TOP240119	WT	WT	WT	WT	WT	MUT
ZOCA2024/67232	TOP240120	WT	WT	WT	WT	WT	WT
ZOCA2024/67233	TOP240121	WT	WT	WT	MUT	WT	WT
ZOCA2024/67234	TOP240122	WT	WT	WT	MUT	WT	WT
ZOCA2024/67235	TOP240123	WT	WT	WT	WT	WT	MUT
ZOCA2024/67236	TOP240125	WT	WT	WT	WT	WT	WT
ZOCA2024/67237	TOP240126	WT	WT	WT	WT	WT	WT
ZOCA2024/67238	TOP240127	WT	WT	WT	WT	WT	WT
ZOCA2024/67239	TOP240128	WT	WT	WT	WT	WT	WT
ZOCA2024/67240	TOP240129	WT	WT	WT	WT	WT	WT
ZOCA2024/67241	TOP240130	WT	WT	WT	WT	WT	WT
ZOCA2024/67242	TOP240131	WT	WT	WT	WT	WT	WT
ZOCA2024/67243	TOP240132	WT	WT	WT	WT	WT	WT
ZOCA2024/67244	TOP240133	WT	WT	WT	WT	WT	MUT

ZOCA2024/67245	TOP240134	WT	WT	WT	WT	WT	MUT
ZOCA2024/67246	TOP240135	WT	WT	WT	MUT	WT	WT
ZOCA2024/67247	TOP240136	WT	WT	WT	MUT	WT	WT
ZOCA2024/67248	TOP240137	WT	WT	WT	WT	WT	WT
ZOCA2024/67249	TOP240138	WT	WT	WT	WT	WT	WT
ZOCA2024/67250	TOP240139	WT	WT	WT	WT	WT	WT
ZOCA2024/67251	TOP240140	WT	WT	WT	WT	WT	WT
ZOCA2024/67252	TOP240141	WT	WT	WT	WT	WT	WT
ZOCA2024/67253	TOP240142	WT	WT	WT	WT	WT	WT
ZOCA2024/67254	TOP240143	WT	WT	WT	WT	WT	WT
ZOCA2024/67255	TOP240144	WT	WT	WT	WT	WT	WT



Dr Christiaan Labuschagne
Genomics Manager



Keagan Strydom
Analyst

3/26/2024

Date

****Disclaimer**

Whatever is contained in this report is subject to the following:

Inqaba Biotechnical Industries Pty Ltd and the divisions thereof (Registration number: 2001/011245/07) accepts that the biological specimen(s) provided, originates from the relevant animal(s) as indicated on the relevant specimen(s) provided;

It is the responsibility of the client that all biological samples are available or has previously been submitted, and corresponds with all requested samples listed on the sample submission form. Inqaba Biotechnical Industries Pty Ltd and the divisions thereof does not accept responsibility for the effect of any absent samples on the analysis results;

Inqaba Biotechnical Industries Pty Ltd and the divisions thereof accepts that all genetic profiles and/or samples from external sources are correctly labelled and accurate;

Inqaba Biotechnical Industries Pty Ltd and the divisions thereof shall not be responsible for human and/or technical errors that could not have been foreseen;

This document is solely for the use of the addressee and only in connection for the purpose set out in this document. Inqaba Biotechnical Industries Pty Ltd and the divisions thereof do not assume liability or responsibility to any third party to which this document is disclosed or otherwise made available;

Nothing in this document should be construed as advice to proceed or not to proceed with any specific course of action, as it was not prepared for that purpose;

It is the sender's responsibility to obtain permits when sending samples where required;

Inqaba Biotechnical Industries Pty Ltd and the divisions thereof reserves the right to decline testing of samples;

No guarantees are made with regards to turn-around time and results, and no liability will be accepted for any delays.



ZooOmics™ is a division of Inqaba Biotechnical Industries Pty Ltd
info@ZooOmics.co.za
525 Justice Mahomed Str, Muckleneuk, Pretoria 0002
PO Box 14356, Hatfield, Pretoria 0028

CATTLE MUTATION ANALYSIS REPORT

Order Information			
Name:	Wilzak Boerdery	Print Date:	2024/04/12
Telephone No.:	(83) 985-5815	Date received:	2024/04/05
E-mail address:	elisca@wilzak.co.za	No. samples:	24

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)					
		Q204X		Nt821		F94L	
ZOCA2024-67892	TOP240145	WT	WT	WT	WT	WT	MUT
ZOCA2024-67893	TOP240146	WT	WT	WT	WT	WT	MUT
ZOCA2024-67894	TOP240147	WT	WT	WT	WT	WT	WT
ZOCA2024-67895	TOP240148	WT	WT	WT	WT	WT	WT
ZOCA2024-67896	TOP240149	WT	WT	WT	WT	WT	WT
ZOCA2024-67897	TOP240150	WT	WT	WT	WT	WT	WT
ZOCA2024-67898	TOP240151	WT	WT	WT	WT	WT	WT
ZOCA2024-67899	TOP240152	WT	WT	WT	WT	WT	WT
ZOCA2024-67900	TOP240153	WT	WT	WT	WT	WT	WT
ZOCA2024-67901	TOP240154	WT	WT	WT	WT	WT	MUT
ZOCA2024-67902	TOP240155	WT	WT	WT	WT	WT	WT
ZOCA2024-67903	TOP240156	WT	WT	WT	WT	WT	WT
ZOCA2024-67904	TOP240157	WT	WT	WT	WT	WT	MUT
ZOCA2024-67905	TOP240158	WT	WT	WT	WT	WT	WT
ZOCA2024-67906	TOP240159	WT	WT	WT	WT	WT	WT
ZOCA2024-67907	TOP240160	WT	WT	WT	WT	WT	WT
ZOCA2024-67908	TOP240161	WT	WT	WT	WT	WT	WT
ZOCA2024-67909	TOP240162	WT	WT	WT	WT	WT	WT
ZOCA2024-67910	TOP240163	WT	WT	WT	WT	WT	MUT
ZOCA2024-67911	TOP240164	WT	WT	WT	WT	WT	WT
ZOCA2024-67912	TOP240165	WT	WT	WT	WT	WT	MUT
ZOCA2024-67913	TOP240166	WT	WT	WT	WT	WT	WT
ZOCA2024-67914	TOP240167	WT	WT	WT	WT	WT	WT
ZOCA2024-67915	TOP240168	WT	WT	WT	WT	WT	WT

Dr Christiaan Labuschagne
Genomics Manager

Analyst

2024/04/12

Date

****Disclaimer**

Whatever is contained in this report is subject to the following:

Inqaba Biotechnical Industries Pty Ltd and the divisions thereof (Registration number: 2001/011245/07)

accepts that the biological specimen(s) provided, originates from the relevant animal(s) as indicated on the relevant specimen(s) provided;

It is the responsibility of the client that all biological samples are available or has previously been submitted, and corresponds with all requested samples listed on the sample submission form. Inqaba Biotechnical Industries Pty Ltd and the divisions thereof does not accept responsibility for the effect of any absent samples on the analysis results;

Inqaba Biotechnical Industries Pty Ltd and the divisions thereof accepts that all genetic profiles and/or samples from external sources are correctly labelled and accurate;

Inqaba Biotechnical Industries Pty Ltd and the divisions thereof shall not be responsible for human and/or technical errors that could not have been foreseen;

This document is solely for the use of the addressee and only in connection for the purpose set out in this document. Inqaba Biotechnical Industries Pty Ltd and the divisions thereof do not assume liability or responsibility to any third party to which this document is disclosed or otherwise made available;

Nothing in this document should be construed as advice to proceed or not to proceed with any specific course of action, as it was not prepared for that purpose;

It is the sender's responsibility to obtain permits when sending samples where required;

Inqaba Biotechnical Industries Pty Ltd and the divisions thereof reserves the right to decline testing of samples;

No guarantees are made with regards to turn-around time and results, and no liability will be accepted for any delays.



ZooOmics™ is a division of Inqaba Biotechnical Industries Pty Ltd
info@ZooOmics.co.za
525 Justice Mahomed Str, Muckleneuk, Pretoria 0002
PO Box 14356, Hatfield, Pretoria 0028

CATTLE MUTATION ANALYSIS REPORT

Order Information			
Name:	Wilzak Boerdery	Print Date:	2024/05/09
Telephone No.:	(83) 985-5815	Date received:	2024/05/02
E-mail address:	elisca@wilzak.co.za	No. samples:	1

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)					
		Q204X		Nt821		F94L	
ZOCA2024-69340	TOP240169	WT	WT	WT	WT	WT	MUT

Dr Christiaan Labuschagne
Genomics Manager

Rieze Straeuli
Analyst

2024/05/09

Date

**Disclaimer

Whatever is contained in this report is subject to the following:

Inqaba Biotechnical Industries Pty Ltd and the divisions thereof (Registration number: 2001/011245/07) accepts that the biological specimen(s) provided, originates from the relevant animal(s) as indicated on the relevant specimen(s) provided;

It is the responsibility of the client that all biological samples are available or has previously been submitted, and corresponds with all requested samples listed on the sample submission form. Inqaba Biotechnical Industries Pty Ltd and the divisions thereof does not accept responsibility for the effect of any absent samples on the analysis results;

Inqaba Biotechnical Industries Pty Ltd and the divisions thereof accepts that all genetic profiles and/or samples from external sources are correctly labelled and accurate;

Inqaba Biotechnical Industries Pty Ltd and the divisions thereof shall not be responsible for human and/or technical errors that could not have been foreseen;

This document is solely for the use of the addressee and only in connection for the purpose set out in this document. Inqaba Biotechnical Industries Pty Ltd and the divisions thereof do not assume liability or responsibility to any third party to which this document is disclosed or otherwise made available;

Nothing in this document should be construed as advice to proceed or not to proceed with any specific course of action, as it was not prepared for that purpose;

It is the sender's responsibility to obtain permits when sending samples where required;

Inqaba Biotechnical Industries Pty Ltd and the divisions thereof reserves the right to decline testing of samples;

No guarantees are made with regards to turn-around time and results, and no liability will be accepted for any delays.



CATTLE MUTATION ANALYSIS REPORT

Order Information

Name:	Wilzak Boerdery	Print Date:	2024/07/10
Telephone No.:	0839855815	Date received:	2024/06/25
E-mail address:	elisca@wilzak.co.za	No. samples:	7

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)					
		Q204X		Nt821		F94L	
ZOCA2024-72187	TOP240170	WT	WT	WT	WT	WT	WT
ZOCA2024-72188	TOP240171	WT	WT	WT	WT	WT	WT
ZOCA2024-72189	TOP240172	WT	WT	WT	WT	WT	WT
ZOCA2024-72190	TOP240173	WT	WT	WT	MUT	WT	WT
ZOCA2024-72191	TOP240174	WT	WT	WT	MUT	WT	WT
ZOCA2024-72192	TOP240175	WT	WT	WT	WT	WT	WT
ZOCA2024-72193	TOP240176	WT	WT	WT	MUT	WT	WT

Dr Christiaan Labuschagne
Genomics Manager

Analyst

2024/07/10

Date

**Disclaimer

Whatever is contained in this report is subject to the following:

Inqaba Biotechnical Industries Pty Ltd and the divisions thereof (Registration number: 2001/011245/07) accepts that the biological specimen(s) provided, originates from the relevant animal(s) as indicated on the relevant specimen(s) provided;

It is the responsibility of the client that all biological samples are available or has previously been submitted, and corresponds with all requested samples listed on the sample submission form. Inqaba Biotechnical Industries Pty Ltd and the divisions thereof does not accept responsibility for the effect of any absent samples on the analysis results;

Inqaba Biotechnical Industries Pty Ltd and the divisions thereof accepts that all genetic profiles and/or samples from external sources are correctly labelled and accurate;

Inqaba Biotechnical Industries Pty Ltd and the divisions thereof shall not be responsible for human and/or technical errors that could not have been foreseen;

This document is solely for the use of the addressee and only in connection for the purpose set out in this document. Inqaba Biotechnical Industries Pty Ltd and the divisions thereof do not assume liability or responsibility to any third party to which this document is disclosed or otherwise made available;

Nothing in this document should be construed as advice to proceed or not to proceed with any specific course of

action, as it was not prepared for that purpose;

It is the sender's responsibility to obtain permits when sending samples where required;

Inqaba Biotechnical Industries Pty Ltd and the divisions thereof reserves the right to decline testing of samples;

No guarantees are made with regards to turn-around time and results, and no liability will be accepted for any delays.



ZooOmics™ is a division of Inqaba Biotechnical Industries Pty Ltd
info@ZooOmics.co.za
525 Justice Mahomed Str, Muckleneuk, Pretoria 0002
PO Box 14356, Hatfield, Pretoria 0028

CATTLE MUTATION ANALYSIS REPORT

Order Information

Name:	Wilzak Agri	Print Date:	2024/08/06
Telephone No.:	0839855815	Date received:	2024/08/01
E-mail address:	elisca@wilzak.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)					
		Q204X		Nt821		F94L	
ZOCA2024-73613	TOP240179	WT	WT	WT	MUT	WT	WT
ZOCA2024-73614	TOP240180	WT	WT	WT	WT	WT	MUT

Dr Christiaan Labuschagne
Genomics Manager

Analyst

2024/08/06

Date

**Disclaimer

Whatever is contained in this report is subject to the following:

Inqaba Biotechnical Industries Pty Ltd and the divisions thereof (Registration number: 2001/011245/07) accepts that the biological specimen(s) provided, originates from the relevant animal(s) as indicated on the relevant specimen(s) provided;

It is the responsibility of the client that all biological samples are available or has previously been submitted, and corresponds with all requested samples listed on the sample submission form. Inqaba Biotechnical Industries Pty Ltd and the divisions thereof does not accept responsibility for the effect of any absent samples on the analysis results;

Inqaba Biotechnical Industries Pty Ltd and the divisions thereof accepts that all genetic profiles and/or samples from external sources are correctly labelled and accurate;

Inqaba Biotechnical Industries Pty Ltd and the divisions thereof shall not be responsible for human and/or technical errors that could not have been foreseen;

This document is solely for the use of the addressee and only in connection for the purpose set out in this document. Inqaba Biotechnical Industries Pty Ltd and the divisions thereof do not assume liability or responsibility to any third party to which this document is disclosed or otherwise made available;

Nothing in this document should be construed as advice to proceed or not to proceed with any specific course of action, as it was not prepared for that purpose;

It is the sender's responsibility to obtain permits when sending samples where required;
Inqaba Biotechnical Industries Pty Ltd and the divisions thereof reserves the right to decline testing of samples;

No guarantees are made with regards to turn-around time and results, and no liability will be accepted for any delays.

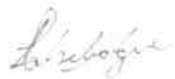


ZooOmics™ is a division of Inqaba Biotechnical Industries Pty Ltd
info@ZooOmics.co.za
525 Justice Mahomed Str, Muckleneuk, Pretoria 0002
PO Box 14356, Hatfield, Pretoria 0028

CATTLE MUTATION ANALYSIS REPORT

Order Information			
Name:	Wilzak Boerdery	Print Date:	2024/09/27
Telephone No.:	0839855815	Date received:	2024/09/23
E-mail address:	elisca@wilzak.co.za	No. samples:	8

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)					
		Q204X		Nt821		F94L	
ZOCA2024-77240	TOP240257	WT	WT	WT	WT	WT	WT
ZOCA2024-77241	TOP240258	WT	WT	WT	WT	WT	WT
ZOCA2024-77242	TOP240260	WT	WT	WT	WT	WT	WT
ZOCA2024-77243	TOP240261	WT	WT	WT	WT	WT	WT
ZOCA2024-77244	TOP240262	WT	WT	WT	WT	WT	WT
ZOCA2024-77245	TOP240263	WT	WT	WT	MUT	WT	WT
ZOCA2024-77246	TOP240264	WT	WT	WT	WT	WT	WT
ZOCA2024-77247	TOP240265	WT	WT	WT	MUT	WT	WT


Dr Christiaan Labuschagne
Genomics Manager


Analyst

2024/09/27
Date

**Disclaimer

Whatever is contained in this report is subject to the following:

Inqaba Biotechnical Industries Pty Ltd and the divisions thereof (Registration number: 2001/011245/07) accepts that the biological specimen(s) provided, originates from the relevant animal(s) as indicated on the relevant specimen(s) provided;

It is the responsibility of the client that all biological samples are available or has previously been submitted, and corresponds with all requested samples listed on the sample submission form. Inqaba Biotechnical Industries Pty Ltd and the divisions thereof does not accept responsibility for the effect of any absent samples on the analysis results;

Inqaba Biotechnical Industries Pty Ltd and the divisions thereof accepts that all genetic profiles and/or samples from external sources are correctly labelled and accurate;

Inqaba Biotechnical Industries Pty Ltd and the divisions thereof shall not be responsible for human and/or technical errors that could not have been foreseen;

This document is solely for the use of the addressee and only in connection for the purpose set out in this document.

Inqaba Biotechnical Industries Pty Ltd and the divisions thereof do not assume liability or responsibility to any third party

to which this document is disclosed or otherwise made available;

Nothing in this document should be construed as advice to proceed or not to proceed with any specific course of action, as it was not prepared for that purpose;

It is the sender's responsibility to obtain permits when sending samples where required;

Inqaba Biotechnical Industries Pty Ltd and the divisions thereof reserves the right to decline testing of samples;

No guarantees are made with regards to turn-around time and results, and no liability will be accepted for any delays.



CATTLE MUTATION ANALYSIS REPORT

Order Information

Name:	Wilzak Boerdery	Print Date:	2024/10/29
Telephone No.:	0839855815	Date received:	2024/10/16
E-mail address:	elisca@wilzak.co.za	No. samples:	9

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)					
		Q204X		Nt821		F94L	
ZOCA2024-78487	TOP240266	WT	WT	WT	WT	WT	MUT
ZOCA2024-78488	TOP240267	WT	WT	WT	WT	WT	WT
ZOCA2024-78489	TOP240268	WT	WT	WT	WT	WT	WT
ZOCA2024-78490	TOP240269	WT	WT	WT	MUT	WT	WT
ZOCA2024-78491	TOP240270	WT	WT	WT	WT	WT	WT
ZOCA2024-78492	TOP240271	WT	WT	WT	MUT	WT	WT
ZOCA2024-78493	TOP240272	Envelope Empty					
ZOCA2024-78494	HOT200724	WT	WT	WT	WT	WT	WT
ZOCA2024-78495	TOP230243	WT	WT	WT	MUT	WT	WT

Dr Christiaan Labuschagne
Genomics Manager

Analyst

2024/10/29

Date

**Disclaimer

Whatever is contained in this report is subject to the following:

Inqaba Biotechnical Industries Pty Ltd and the divisions thereof (Registration number: 2001/011245/07) accepts that the biological specimen(s) provided, originates from the relevant animal(s) as indicated on the relevant specimen(s) provided;

It is the responsibility of the client that all biological samples are available or has previously been submitted, and corresponds with all requested samples listed on the sample submission form. Inqaba Biotechnical Industries Pty Ltd and the divisions thereof does not accept responsibility for the effect of any absent samples on the analysis results;

Inqaba Biotechnical Industries Pty Ltd and the divisions thereof accepts that all genetic profiles and/or samples

from external sources are correctly labelled and accurate;

Inqaba Biotechnical Industries Pty Ltd and the divisions thereof shall not be responsible for human and/or technical errors that could not have been foreseen;

This document is solely for the use of the addressee and only in connection for the purpose set out in this document. Inqaba Biotechnical Industries Pty Ltd and the divisions thereof do not assume liability or responsibility to any third party to which this document is disclosed or otherwise made available;

Nothing in this document should be construed as advice to proceed or not to proceed with any specific course of action, as it was not prepared for that purpose;

It is the sender's responsibility to obtain permits when sending samples where required;

Inqaba Biotechnical Industries Pty Ltd and the divisions thereof reserves the right to decline testing of samples;

No guarantees are made with regards to turn-around time and results, and no liability will be accepted for any delays.



ZooOmics™ is a division of Inqaba Biotechnical Industries Pty Ltd
info@ZooOmics.co.za
525 Justice Mahomed Str, Muckleneuk, Pretoria 0002
PO Box 14356, Hatfield, Pretoria 0028

CATTLE MUTATION ANALYSIS REPORT

Order Information

Name:	Wilzak Boerdery	Print Date:	10/30/2024
Telephone No.:	(83) 985-5815	Date received:	10/23/2024
E-mail address:	elisca@wilzak.co.za	No. samples:	17

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)					
		Q204X		Nt821		F94L	
ZOCA2024-78794	TOP240272	WT	WT	WT	WT	WT	WT
ZOCA2024-78795	TOP240273	WT	WT	WT	WT	WT	WT
ZOCA2024-78796	TOP240274	WT	WT	WT	WT	WT	WT
ZOCA2024-78797	TOP240275	WT	WT	WT	WT	WT	WT
ZOCA2024-78798	TOP240277	WT	WT	WT	MUT	WT	WT
ZOCA2024-78799	TOP240278	WT	WT	WT	MUT	WT	WT
ZOCA2024-78800	TOP240279	WT	WT	WT	MUT	WT	WT
ZOCA2024-78801	TOP240280	WT	WT	WT	WT	WT	WT
ZOCA2024-78802	TOP240281	WT	WT	WT	WT	WT	WT
ZOCA2024-78803	TOP240282	WT	WT	WT	MUT	WT	WT
ZOCA2024-78804	TOP240283	WT	WT	WT	WT	WT	WT
ZOCA2024-78805	TOP240284	WT	WT	WT	WT	WT	WT
ZOCA2024-78806	TOP240288	WT	WT	WT	WT	WT	WT
ZOCA2024-78807	AGO230016	WT	WT	WT	WT	WT	WT
ZOCA2024-78808	HS200540	WT	WT	WT	WT	WT	WT
ZOCA2024-78809	HS200670	WT	WT	WT	WT	WT	WT
ZOCA2024-78810	HS220567	WT	WT	WT	MUT	WT	WT

Dr Christiaan Labuschagne
Genomics Manager

Samkelele Masiza
Analyst

10/30/2024

Date

**Disclaimer

Whatever is contained in this report is subject to the following:

Inqaba Biotechnical Industries Pty Ltd and the divisions thereof (Registration number: 2001/011245/07) accepts that the biological specimen(s) provided, originates from the relevant animal(s) as indicated on the relevant specimen(s) provided;

It is the responsibility of the client that all biological samples are available or has previously been submitted, and corresponds with all requested samples listed on the sample submission form. Inqaba Biotechnical Industries Pty Ltd and the divisions thereof does not accept responsibility for the effect of any absent

samples on the analysis results;

Inqaba Biotechnical Industries Pty Ltd and the divisions thereof accepts that all genetic profiles and/or samples from external sources are correctly labelled and accurate;

Inqaba Biotechnical Industries Pty Ltd and the divisions thereof shall not be responsible for human and/or technical errors that could not have been foreseen;

This document is solely for the use of the addressee and only in connection for the purpose set out in this document. Inqaba Biotechnical Industries Pty Ltd and the divisions thereof do not assume liability or responsibility to any third party to which this document is disclosed or otherwise made available;

Nothing in this document should be construed as advice to proceed or not to proceed with any specific course of action, as it was not prepared for that purpose;

It is the sender's responsibility to obtain permits when sending samples where required;

Inqaba Biotechnical Industries Pty Ltd and the divisions thereof reserves the right to decline testing of samples;

No guarantees are made with regards to turn-around time and results, and no liability will be accepted for any delays.



ZooOmics™ is a division of Ingaba Biotechnical Industries Pty Ltd
info@ZooOmics.co.za
525 Justice Mahomed Str, Muckleneuk, Pretoria 0002
PO Box 14356, Hatfield, Pretoria 0028

CATTLE MUTATION ANALYSIS REPORT

Order Information

Name:	Wilzak Boerdery	Print Date:	2024/11/14
Telephone No.:	0839855815	Date received:	2024/11/11
E-mail address:	elisca@wilzak.co.za	No. samples:	10

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)					
		Q204X		Nt821		F94L	
ZOCA2024-80032	TOP240272	WT	WT	WT	WT	WT	WT
ZOCA2024-80033	TOP240328	WT	WT	WT	MUT	WT	WT
ZOCA2024-80034	TOP240329	WT	WT	WT	WT	WT	WT
ZOCA2024-80035	TOP240330	WT	WT	WT	WT	WT	WT
ZOCA2024-80036	TOP240331	WT	WT	WT	WT	WT	WT
ZOCA2024-80037	TOP240332	WT	WT	WT	WT	WT	WT
ZOCA2024-80038	TOP240333	WT	WT	WT	WT	WT	WT
ZOCA2024-80039	TOP240334	WT	WT	WT	WT	WT	WT
ZOCA2024-80040	TOP240335	WT	WT	WT	MUT	WT	WT
ZOCA2024-80041	TOP240338	WT	WT	WT	WT	WT	MUT

Dr Christiaan Labuschagne
Genomics Manager

Analyst

2024/11/14

Date

****Disclaimer**

Whatever is contained in this report is subject to the following:

Inqaba Biotechnical Industries Pty Ltd and the divisions thereof (Registration number: 2001/011245/07) accepts that the biological specimen(s) provided, originates from the relevant animal(s) as indicated on the relevant specimen(s) provided;

It is the responsibility of the client that all biological samples are available or has previously been submitted, and corresponds with all requested samples listed on the sample submission form. Inqaba Biotechnical Industries Pty Ltd and the divisions thereof does not accept responsibility for the effect of any absent samples on the analysis results;

Inqaba Biotechnical Industries Pty Ltd and the divisions thereof accepts that all genetic profiles and/or samples from external sources are correctly labelled and accurate;

Inqaba Biotechnical Industries Pty Ltd and the divisions thereof shall not be responsible for human and/or technical errors that could not have been foreseen;

This document is solely for the use of the addressee and only in connection for the purpose set out in this document. Inqaba Biotechnical Industries Pty Ltd and the divisions thereof do not assume liability or responsibility to any third party to which this document is disclosed or otherwise made available;

Nothing in this document should be construed as advice to proceed or not to proceed with any specific course of action, as it was not prepared for that purpose;

It is the sender's responsibility to obtain permits when sending samples where required;

Inqaba Biotechnical Industries Pty Ltd and the divisions thereof reserves the right to decline testing of samples;

No guarantees are made with regards to turn-around time and results, and no liability will be accepted for any delays.



ZooOmics™ is a division of Inqaba Biotechnical Industries Pty Ltd
info@ZooOmics.co.za
525 Justice Mahomed Str, Muckleneuk, Pretoria 0002
PO Box 14356, Hatfield, Pretoria 0028

CATTLE MUTATION ANALYSIS REPORT

Order Information

Name:	Wilzak Boerdery	Print Date:	2024/11/08
Telephone No.:	0839855815	Date received:	2024/11/04
E-mail address:	elisca@wilzak.co.za	No. samples:	16

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)					
		Q204X		Nt821		F94L	
ZOCA2024-79820	TOP240312	WT	WT	WT	WT	WT	WT
ZOCA2024-79821	TOP240313	WT	WT	WT	MUT	WT	WT
ZOCA2024-79822	TOP240314	WT	WT	WT	WT	WT	WT
ZOCA2024-79823	TOP240315	WT	WT	WT	MUT	WT	WT
ZOCA2024-79824	TOP240316	WT	WT	WT	WT	WT	WT
ZOCA2024-79825	TOP240317	WT	WT	WT	WT	WT	WT
ZOCA2024-79826	TOP240318	WT	WT	WT	WT	WT	WT
ZOCA2024-79827	TOP240319	WT	WT	WT	WT	WT	MUT
ZOCA2024-79828	TOP240320	WT	WT	WT	WT	WT	WT
ZOCA2024-79829	TOP240321	WT	WT	WT	WT	WT	WT
ZOCA2024-79830	TOP240322	WT	WT	WT	WT	WT	WT
ZOCA2024-79831	TOP240323	WT	WT	WT	WT	WT	WT
ZOCA2024-79832	TOP240324	WT	WT	WT	WT	WT	WT
ZOCA2024-79833	TOP240325	WT	WT	WT	WT	WT	WT
ZOCA2024-79834	TOP240326	WT	WT	WT	WT	WT	WT
ZOCA2024-79835	TOP240327	WT	WT	WT	WT	WT	WT

Dr Christiaan Labuschagne
Genomics Manager

Analyst

2024/11/08

Date

**Disclaimer

Whatever is contained in this report is subject to the following:

Inqaba Biotechnical Industries Pty Ltd and the divisions thereof (Registration number: 2001/011245/07) accepts that the biological specimen(s) provided, originates from the relevant animal(s) as indicated on

the relevant specimen(s) provided;

It is the responsibility of the client that all biological samples are available or has previously been submitted, and corresponds with all requested samples listed on the sample submission form. Inqaba Biotechnical Industries Pty Ltd and the divisions thereof does not accept responsibility for the effect of any absent samples on the analysis results;

Inqaba Biotechnical Industries Pty Ltd and the divisions thereof accepts that all genetic profiles and/or samples from external sources are correctly labelled and accurate;

Inqaba Biotechnical Industries Pty Ltd and the divisions thereof shall not be responsible for human and/or technical errors that could not have been foreseen;

This document is solely for the use of the addressee and only in connection for the purpose set out in this document. Inqaba Biotechnical Industries Pty Ltd and the divisions thereof do not assume liability or responsibility to any third party to which this document is disclosed or otherwise made available;

Nothing in this document should be construed as advice to proceed or not to proceed with any specific course of action, as it was not prepared for that purpose;

It is the sender's responsibility to obtain permits when sending samples where required;

Inqaba Biotechnical Industries Pty Ltd and the divisions thereof reserves the right to decline testing of samples;

No guarantees are made with regards to turn-around time and results, and no liability will be accepted for any delays.



ZooOmics™ is a division of Inqaba Biotechnical Industries Pty Ltd
info@ZooOmics.co.za
525 Justice Mahomed Str, Muckleneuk, Pretoria 0002
PO Box 14356, Hatfield, Pretoria 0028

CATTLE MUTATION ANALYSIS REPORT

Order Information

Name:	Wilzak Boerdery	Print Date:	2024/12/02
Telephone No.:	0839855815	Date received:	2024/01/28
E-mail address:	elisca@wilzak.co.za	No. samples:	5

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)					
		Q204X		Nt821		F94L	
ZOCA2024-80818	TOP240339	WT	WT	WT	MUT	WT	WT
ZOCA2024-80819	TOP240340	WT	WT	WT	WT	WT	MUT
ZOCA2024-80820	TOP240341	WT	WT	WT	WT	WT	MUT
ZOCA2024-80821	TOP240342	WT	WT	WT	WT	WT	WT
ZOCA2024-80822	TOP240343	WT	WT	WT	WT	WT	WT

Dr Christiaan Labuschagne
Genomics Manager

Catherine Greenslade
Analyst

2024/12/02

Date

**Disclaimer

Whatever is contained in this report is subject to the following:

Inqaba Biotechnical Industries Pty Ltd and the divisions thereof (Registration number: 2001/011245/07) accepts that the biological specimen(s) provided, originates from the relevant animal(s) as indicated on the relevant specimen(s) provided;

It is the responsibility of the client that all biological samples are available or has previously been submitted, and corresponds with all requested samples listed on the sample submission form. Inqaba Biotechnical Industries Pty Ltd and the divisions thereof does not accept responsibility for the effect of any absent samples on the analysis results;

Inqaba Biotechnical Industries Pty Ltd and the divisions thereof accepts that all genetic profiles and/or samples from external sources are correctly labelled and accurate;

Inqaba Biotechnical Industries Pty Ltd and the divisions thereof shall not be responsible for human and/or technical errors that could not have been foreseen;

This document is solely for the use of the addressee and only in connection for the purpose set out in this document. Inqaba Biotechnical Industries Pty Ltd and the divisions thereof do not assume liability or responsibility to any third party to which this document is disclosed or otherwise made available; Nothing in this document should be construed as advice to proceed or not to proceed with any specific course of action, as it was not prepared for that purpose;

It is the sender's responsibility to obtain permits when sending samples where required;

Inqaba Biotechnical Industries Pty Ltd and the divisions thereof reserves the right to decline testing of samples;

No guarantees are made with regards to turn-around time and results, and no liability will be accepted for any delays.