

DNA PROFILE CERTIFICATE

General Information:

Test Animal	
ANIMAL ID/NAME	BC171038
MICROCHIP NUMBER	NOT PROVIDED
SPECIES	CATTLE
GENDER	MALE
OWNER	BENCHMARK BEEFMASTERS
LAB. NO	ZOBOS20-05769

DNA Profiling Results:

STR Marker	Allele 1	Allele 2
TGLA227	89	91
BM2113	129	137
TGLA053	164	168
ETH10	213	213
ILSTS011	266	266
SPS113	140	153
RM067	94	94
TGLA126	115	123
TGLA122	137	137
INRA023	202	208

STR Marker	Allele 1	Allele 2
BM1818	262	264
ETH003	115	121
ETH225	150	150
BM1824	180	182
SPS115	248	248
CSRM060	100	104
MGTG4B	147	147
CSSM066	187	197
ILSTS006	292	296

The DNA profile represents the standardised alleles for the 12 International Society for Animal Genetics (ISAG, 2016) recommended markers. These alleles were obtained from STR analysis by capillary electrophoresis. The DNA profile includes additional markers as recommended by the Food and Agriculture Organization of the United Nations (FAO) for routine bovine parentage testing and identification.



Dr Christiaan Labuschagne
Genomics Manager

29 August 2020

Date

****See disclaimer on reverse side**

ISAG
Institutional Member

CVML15/AG/00226

06-Mar-15

****Disclaimer**

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

- 1** 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
- 2** 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;
- 3** 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;
- 4** 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;
- 5** 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 assume liability or responsibility to any third party to which this document is disclosed or otherwise made available;
- 6** 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;
- 7** The DNA profile is based on a preliminary marker panel that is subject to modification pending additional genetic information;
- 8** It is the sender's responsibility to obtain permits when sending samples where required;
- 9** Inqaba Biotechnical Industries Pty Ltd and the divisions thereof reserves the right to decline testing of samples;
- 10** No guarantees are made with regards to turn-around time and results, and no liability will be accepted for any delays.

DNA PROFILE CERTIFICATE

General Information:

Test Animal	
ANIMAL ID/NAME	BC171127
MICROCHIP NUMBER	NOT PROVIDED
SPECIES	CATTLE
GENDER	MALE
OWNER	BENCHMARK BEEFMASTERS
LAB. NO	ZOBOS20-05773

DNA Profiling Results:

STR Marker	Allele 1	Allele 2
TGLA227	77	91
BM2113	129	139
TGLA053	168	168
ETH10	209	213
ILSTS011	266	268
SPS113	140	147
RM067	90	94
TGLA126	119	125
TGLA122	137	143
INRA023	202	210

STR Marker	Allele 1	Allele 2
BM1818	264	268
ETH003	117	117
ETH225	144	150
BM1824	180	192
SPS115	246	248
CSRM060	100	102
MGTG4B	137	145
CSSM066	187	197
ILSTS006	293	296

The DNA profile represents the standardised alleles for the 12 International Society for Animal Genetics (ISAG, 2016) recommended markers. These alleles were obtained from STR analysis by capillary electrophoresis. The DNA profile includes additional markers as recommended by the Food and Agriculture Organization of the United Nations (FAO) for routine bovine parentage testing and identification.



Dr Christiaan Labuschagne
Genomics Manager

29 August 2020

Date

****See disclaimer on reverse side**

ISAG
Institutional Member

CVML15/AG/00226

06-Mar-15

ZOBOS20-05773-DC

29-Aug-20

****Disclaimer**

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

- 1** 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
- 2** 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;
- 3** 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;
- 4** 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;
- 5** 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 assume liability or responsibility to any third party to which this document is disclosed or otherwise made available;
- 6** 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;
- 7** The DNA profile is based on a preliminary marker panel that is subject to modification pending additional genetic information;
- 8** It is the sender's responsibility to obtain permits when sending samples where required;
- 9** Inqaba Biotechnical Industries Pty Ltd and the divisions thereof reserves the right to decline testing of samples;
- 10** No guarantees are made with regards to turn-around time and results, and no liability will be accepted for any delays.

DNA PROFILE CERTIFICATE

General Information:

Test Animal	
ANIMAL ID/NAME	BC181062
MICROCHIP NUMBER	NOT PROVIDED
SPECIES	CATTLE
GENDER	MALE
OWNER	BENCHMARK BEEFMASTERS
LAB. NO	ZOBOS20-05788

DNA Profiling Results:

STR Marker	Allele 1	Allele 2
TGLA227	87	97
BM2113	131	143
TGLA053	Not Detected	
ETH10	209	213
ILSTS011	Not Detected	
SPS113	Not Detected	
RM067	90	94
TGLA126	115	121
TGLA122	143	143
INRA023	214	214

STR Marker	Allele 1	Allele 2
BM1818	264	266
ETH003	119	121
ETH225	150	150
BM1824	180	182
SPS115	248	248
CSRM060	96	100
MGTG4B	137	147
CSSM066	193	199
ILSTS006	Not Detected	

The DNA profile represents the standardised alleles for the 12 International Society for Animal Genetics (ISAG, 2016) recommended markers. These alleles were obtained from STR analysis by capillary electrophoresis. The DNA profile includes additional markers as recommended by the Food and Agriculture Organization of the United Nations (FAO) for routine bovine parentage testing and identification.



Dr Christiaan Labuschagne
Genomics Manager

29 August 2020

Date

****See disclaimer on reverse side**

ISAG
Institutional Member

CVML15/AG/00226

06-Mar-15

****Disclaimer**

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

- 1** 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
- 2** 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;
- 3** 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;
- 4** 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;
- 5** 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 assume liability or responsibility to any third party to which this document is disclosed or otherwise made available;
- 6** 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;
- 7** The DNA profile is based on a preliminary marker panel that is subject to modification pending additional genetic information;
- 8** It is the sender's responsibility to obtain permits when sending samples where required;
- 9** Inqaba Biotechnical Industries Pty Ltd and the divisions thereof reserves the right to decline testing of samples;
- 10** No guarantees are made with regards to turn-around time and results, and no liability will be accepted for any delays.

DNA PROFILE CERTIFICATE

General Information:

Test Animal	
ANIMAL ID/NAME	BC181544
MICROCHIP NUMBER	NOT PROVIDED
SPECIES	CATTLE
GENDER	MALE
OWNER	BENCHMARK BEEFMASTERS
LAB. NO	ZOBOS20-05796

DNA Profiling Results:

STR Marker	Allele 1	Allele 2
TGLA227	81	91
BM2113	131	137
TGLA053	Not Detected	
ETH10	217	217
ILSTS011	261	261
SPS113	141	153
RM067	90	94
TGLA126	115	117
TGLA122	151	183
INRA023	202	206

STR Marker	Allele 1	Allele 2
BM1818	258	260
ETH003	123	127
ETH225	158	158
BM1824	182	192
SPS115	246	248
CSRM060	98	102
MGTG4B	135	145
CSSM066	183	199
ILSTS006	Not Detected	

The DNA profile represents the standardised alleles for the 12 International Society for Animal Genetics (ISAG, 2016) recommended markers. These alleles were obtained from STR analysis by capillary electrophoresis. The DNA profile includes additional markers as recommended by the Food and Agriculture Organization of the United Nations (FAO) for routine bovine parentage testing and identification.



Dr Christiaan Labuschagne
Genomics Manager

29 August 2020

Date

****See disclaimer on reverse side**

ISAG
Institutional Member

CVML15/AG/00226

06-Mar-15

****Disclaimer**

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

- 1** 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
- 2** 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;
- 3** 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;
- 4** 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;
- 5** 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 assume liability or responsibility to any third party to which this document is disclosed or otherwise made available;
- 6** 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;
- 7** The DNA profile is based on a preliminary marker panel that is subject to modification pending additional genetic information;
- 8** It is the sender's responsibility to obtain permits when sending samples where required;
- 9** Inqaba Biotechnical Industries Pty Ltd and the divisions thereof reserves the right to decline testing of samples;
- 10** No guarantees are made with regards to turn-around time and results, and no liability will be accepted for any delays.

DNA PROFILE CERTIFICATE

General Information:

Test Animal	
ANIMAL ID/NAME	BC181558
MICROCHIP NUMBER	NOT PROVIDED
SPECIES	CATTLE
GENDER	MALE
OWNER	BENCHMARK BEEFMASTERS
LAB. NO	ZOBOS20-05797

DNA Profiling Results:

STR Marker	Allele 1	Allele 2
TGLA227	81	91
BM2113	135	137
TGLA053	Not Detected	
ETH10	Not Detected	
ILSTS011	Not Detected	
SPS113	Not Detected	
RM067	90	90
TGLA126	115	119
TGLA122	143	145
INRA023	198	202

STR Marker	Allele 1	Allele 2
BM1818	Not Detected	
ETH003	115	117
ETH225	140	144
BM1824	180	182
SPS115	246	248
CSRM060	102	110
MGTG4B	137	137
CSSM066	185	185
ILSTS006	Not Detected	

The DNA profile represents the standardised alleles for the 12 International Society for Animal Genetics (ISAG, 2016) recommended markers. These alleles were obtained from STR analysis by capillary electrophoresis. The DNA profile includes additional markers as recommended by the Food and Agriculture Organization of the United Nations (FAO) for routine bovine parentage testing and identification.



Dr Christiaan Labuschagne
Genomics Manager

29 August 2020

Date

****See disclaimer on reverse side**

ISAG
Institutional Member

CVML15/AG/00226

06-Mar-15

****Disclaimer**

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

- 1** 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
- 2** 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;
- 3** 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;
- 4** 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;
- 5** 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 assume liability or responsibility to any third party to which this document is disclosed or otherwise made available;
- 6** 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;
- 7** The DNA profile is based on a preliminary marker panel that is subject to modification pending additional genetic information;
- 8** It is the sender's responsibility to obtain permits when sending samples where required;
- 9** Inqaba Biotechnical Industries Pty Ltd and the divisions thereof reserves the right to decline testing of samples;
- 10** No guarantees are made with regards to turn-around time and results, and no liability will be accepted for any delays.

