



**U.S. Registered Holsteins**  
FOR MAXIMUM PROFIT



**Holstein Association USA, Inc.**

1 Holstein Place • PO Box 808 • Brattleboro, VT 05302-0808  
800.952.5200 • Fax: 802.254.8251  
www.holsteinusa.com

## DNA GENOTYPE CERTIFICATE

**NAME:** USA 141925648 M SLO-TRAIN ALTACAIN  
**DOB:** 06/13/2012 M12093137

**SIRE:** USA 68654441 MORNINGVIEW MAUI-ET  
**DAM:** USA 140838888 SLO-TRAIN INDIANA 3385

|                |         |
|----------------|---------|
| <b>BM1818</b>  | 262/266 |
| <b>BM1824</b>  | 180/188 |
| <b>BM2113</b>  | 127/135 |
| <b>CYP21</b>   | 187/198 |
| <b>ETH10</b>   | 209/217 |
| <b>ETH225</b>  | 150/152 |
| <b>ETH3</b>    | 129/129 |
| <b>INRA023</b> | 210/214 |
| <b>RM067</b>   | 92 /94  |
| <b>SPS115</b>  | 248/256 |
| <b>TGLA126</b> | 117/121 |
| <b>TGLA122</b> | 149/151 |
| <b>TGLA227</b> | 89 /97  |
| <b>TGLA53</b>  | 158/162 |
| <b>MGTG4B</b>  | 141/143 |
| <b>SPS113</b>  | 151/151 |

We hereby certify that this is a true copy of the genotyping on file for the animal listed above as reflected on the records of the Holstein Association USA, Inc.

Jenifer Levissee-Phillips  
Manager, Quality Assurance

**Parentage Status:** Qualifies

**Date Tested:** 01/10/2013  
**Date Issued:** 07/12/2018

The allele sizes reported have been adjusted to animal #1 of the 1995 USA/CS-ISAG comparison test.  
005404439



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July 12, 2018

The Holstein Association USA uses the term haplotype to identify a newly discovered class of mutation, called, a Loss-Of-Function (LOF) mutation. Holstein Association USA will label these LOF mutations as Haplotypes Impacting Fertility and Haplotype associated with Cholesterol Deficiency. In addition, haplotypes associated with published undesirable genetic conditions have also been made available.

The current list of reported haplotypes are: HH1,HH2,HH3,HH4,HH5 (Haplotypes Impacting Fertility), HH0 (Brachyspina), HHC (CVM), HCD (Cholesterol Deficiency), HHB (BLAD), HHD (DUMPS) and HHM (Mulefoot.)

These haplotypes are handled in a different manner than the historic procedures of labeling animals as recessive carrier. Holstein Association USA will provide animal haplotype status on our website, [www.holsteinusa.com](http://www.holsteinusa.com).

Holstein Association USA encourages Holstein breeders to be mindful of the animal status and avoid mating carriers of individual haplotypes to carriers of the same haplotype.

Although no animal can be labeled, "Free of Undesirable Haplotypes" we can confirm that, **SLO-TRAIN ALTACAIN 141925648** based on analysis from genomic testing, is **NOT** a carrier of HH1,HH2,HH3,HH4,HH5 (Haplotypes Impacting Fertility), HH0 (Brachyspina), HHC (CVM), HCD (Cholesterol Deficiency), HHB (BLAD), HHD (DUMPS) and HHM (Mulefoot.)

Jenifer Levissee Phillips  
Manager, Quality Assurance



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## CERTIFICATE OF GENETIC RECESSIVES

|              |                        |                               |
|--------------|------------------------|-------------------------------|
| <b>NAME:</b> | <b>USA 141925648 M</b> | <b>SLO-TRAIN ALTACAIN</b>     |
| <b>DOB:</b>  | <b>06/13/2012</b>      | <b>Herd Mgt #: 521</b>        |
| <b>SIRE:</b> | <b>USA 68654441</b>    | <b>MORNINGVIEW MAUI-ET</b>    |
| <b>DAM:</b>  | <b>USA 140838888</b>   | <b>SLO-TRAIN INDIANA 3385</b> |

|   |                   |
|---|-------------------|
| <b>HCD - Holstein Cholesterol Deficiency</b>        |                   |
| TC - This animal tested free of HCD                 | Recvd: 02/28/2017 |
| <b>DUMPS - Deficiency of Monophosphate Synthase</b> |                   |
| TD - This animal tested Free of DUMPS               | Recvd: 01/15/2013 |
| <b>BLAD - Bovine Leukocyte Adhesion Deficiency</b>  |                   |
| TL - This animal tested Free of BLAD                | Recvd: 01/15/2013 |
| <b>POLD - Polled</b>                                |                   |
| TP - This animal tested Free of Polled              | Recvd: 07/09/2018 |
| <b>CCL - Coat Color</b>                             |                   |
| TR - This animal tested Free of Red                 | Recvd: 07/09/2018 |
| <b>CVM - Complex Vertebral Malformation</b>         |                   |
| TV - This animal tested Free of CVM                 | Recvd: 01/15/2013 |
| <b>BRSP - Brachyspina</b>                           |                   |
| TY - This animal tested free of BRSP                | Recvd: 01/15/2013 |



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## DNA GENOTYPE CERTIFICATE

NAME: USA 73162996 M NO-FLA ALTAVANITY  
DOB: 02/07/2014 M14103759

SIRE: CAN 107533377 TRANQUILLITY AC PRIDE-ET  
DAM: 840 3009524880 NO-FLA ORLAN KRIS 32679-ET

BM1818 262/266  
BM1824 178/178  
BM2113 135/135  
CYP21 187/189  
ETH10 217/217  
ETH225 148/148  
ETH3 127/129  
INRA023 202/210  
RM067 92 /96  
SPS115 248/248  
TGLA126 117/117  
TGLA122 143/151  
TGLA227 91 /99  
TGLA53 162/176  
MGTG4B 141/153  
SPS113 141/147

We hereby certify that this is a true copy of the genotyping on file for the animal listed above as reflected on the records of the Holstein Association USA, Inc.

Jenifer Levissee-Phillips  
Manager, Quality Assurance

Parentage Status: Qualifies

Date Tested: 11/13/2014  
Date Issued: 07/12/2018

The allele sizes reported have been adjusted to animal #1 of the 1995 USA/CS-ISAG comparison test.  
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July 12, 2018

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The current list of reported haplotypes are: HH1,HH2,HH3,HH4,HH5 (Haplotypes Impacting Fertility), HH0 (Brachyspina), HHC (CVM), HCD (Cholesterol Deficiency), HHB (BLAD), HHD (DUMPS) and HHM (Mulefoot.)

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Holstein Association USA encourages Holstein breeders to be mindful of the animal status and avoid mating carriers of individual haplotypes to carriers of the same haplotype.

Although no animal can be labeled, "Free of Undesirable Haplotypes" we can confirm that, **NO-FLA ALTAVANITY 73162996** based on analysis from genomic testing, is **NOT** a carrier of HH1,HH2,HH3,HH4,HH5 (Haplotypes Impacting Fertility), HH0 (Brachyspina), HHC (CVM), HCD (Cholesterol Deficiency), HHB (BLAD), HHD (DUMPS) and HHM (Mulefoot.)

Jenifer Levissee Phillips  
Manager, Quality Assurance



### CERTIFICATE OF GENETIC RECESSIVES

|                             |                                   |
|-----------------------------|-----------------------------------|
| <b>NAME:</b> USA 73162996 M | <b>NO-FLA ALTAVANITY</b>          |
| <b>DOB:</b> 02/07/2014      | <b>Herd Mgt #: 80706</b>          |
| <b>SIRE:</b> CAN 107533377  | <b>TRANQUILLITY AC PRIDE-ET</b>   |
| <b>DAM:</b> 840 3009524880  | <b>NO-FLA ORLAN KRIS 32679-ET</b> |

- HCD - Holstein Cholesterol Deficiency**  
TC - This animal tested free of HCD Recvd: 02/28/2017
- DUMPS - Deficiency of Monophosphate Synthase**  
TD - This animal tested Free of DUMPS Recvd: 04/15/2015
- BLAD - Bovine Leukocyte Adhesion Deficiency**  
TL - This animal tested Free of BLAD Recvd: 04/15/2015
- POLD - Polled**  
TP - This animal tested Free of Polled Recvd: 07/09/2018
- CCL - Coat Color**  
TR - This animal tested Free of Red Recvd: 07/09/2018
- CVM - Complex Vertebral Malformation**  
TV - This animal tested Free of CVM Recvd: 09/02/2014
- BRSP - Brachyspina**  
TY - This animal tested free of BRSP Recvd: 09/02/2014



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## DNA GENOTYPE CERTIFICATE

**NAME:** USA 73953444 M BOMAZ ALTATOPSHOT-ET  
**DOB:** 06/10/2015 M16110410

**SIRE:** NLD 755898903 COGENT SUPERSHOT  
**DAM:** USA 72952096 BOMAZ FRIDO 6185

BM1818 262/266  
BM1824 188/188  
BM2113 125/127  
CYP21 189/200  
ETH10 217/225  
ETH225 148/148  
ETH3 117/129  
INRA023 214/214  
RM067 92 /92  
SPS115 248/252  
TGLA126 117/121  
TGLA122 149/163  
TGLA227 89 /97  
TGLA53 158/160  
MG TG4B 135/141  
SPS113 147/147

We hereby certify that this is a true copy of the genotyping on file for the animal listed above as reflected on the records of the Holstein Association USA, Inc.

Jenifer Levissee-Phillips  
Manager, Quality Assurance

**Parentage Status:** Qualifies

**Date Tested:** 02/10/2016  
**Date Issued:** 07/12/2018

The allele sizes reported have been adjusted to animal #1 of the 1995 USA/CS-ISAG comparison test.  
005404439



July 12, 2018

The Holstein Association USA uses the term haplotype to identify a newly discovered class of mutation, called, a Loss-Of-Function (LOF) mutation. Holstein Association USA will label these LOF mutations as Haplotypes Impacting Fertility and Haplotype associated with Cholesterol Deficiency. In addition, haplotypes associated with published undesirable genetic conditions have also been made available.

The current list of reported haplotypes are: HH1,HH2,HH3,HH4,HH5 (Haplotypes Impacting Fertility), HH0 (Brachyspina), HHC (CVM), HCD (Cholesterol Deficiency), HHB (BLAD), HHD (DUMPS) and HHM (Mulefoot.)

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Holstein Association USA encourages Holstein breeders to be mindful of the animal status and avoid mating carriers of individual haplotypes to carriers of the same haplotype.

Although no animal can be labeled, "Free of Undesirable Haplotypes" we can confirm that, **BOMAZ ALTATOPSHOT-ET 73953444** based on analysis from genomic testing, is **NOT** a carrier of HH1,HH2,HH3,HH4,HH5 (Haplotypes Impacting Fertility), HH0 (Brachyspina), HHC (CVM), HCD (Cholesterol Deficiency), HHB (BLAD), HHD (DUMPS) and HHM (Mulefoot.)

Jenifer Levissee Phillips  
Manager, Quality Assurance



### CERTIFICATE OF GENETIC RECESSIVES

|              |                       |                             |
|--------------|-----------------------|-----------------------------|
| <b>NAME:</b> | <b>USA 73953444 M</b> | <b>BOMAZ ALTATOPSHOT-ET</b> |
| <b>DOB:</b>  | <b>06/10/2015</b>     | <b>Herd Mgt #: 1916</b>     |
| <b>SIRE:</b> | <b>NLD 755898903</b>  | <b>COGENT SUPERSHOT</b>     |
| <b>DAM:</b>  | <b>USA 72952096</b>   | <b>BOMAZ FRIDO 6185</b>     |

**HCD - Holstein Cholesterol Deficiency**  
TC - This animal tested free of HCD Recvd: 02/28/2017

**DUMPS - Deficiency of Monophosphate Synthase**  
TD - This animal tested Free of DUMPS Recvd: 10/06/2015

**BLAD - Bovine Leukocyte Adhesion Deficiency**  
TL - This animal tested Free of BLAD Recvd: 10/06/2015

**POLD - Polled**  
TP - This animal tested Free of Polled Recvd: 07/09/2018

**CCL - Coat Color**  
TR - This animal tested Free of Red Recvd: 07/09/2018

**CVM - Complex Vertebral Malformation**  
TV - This animal tested Free of CVM Recvd: 10/06/2015

**BRSP - Brachyspina**  
TY - This animal tested free of BRSP Recvd: 10/06/2015