



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 73953484 M BOMAZ ALTAROBSON-ET
DOB: 08/24/2015 M16110412

SIRE: USA 72128125 EDG RUBICON-ET
DAM: USA 72952118 BOMAZ BOB 6207-ET

BM1818	262/266
BM1824	178/188
BM2113	135/135
CYP21	189/189
ETH10	209/219
ETH225	150/150
ETH3	117/129
INRA023	210/214
RM067	90 /92
SPS115	248/248
TGLA126	117/117
TGLA122	163/171
TGLA227	87 /89
TGLA53	168/168
MGTG4B	141/141
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: 02/18/2016
Date Issued: 07/05/2018

The allele sizes reported have been adjusted to animal #1 of the 1995 USA/CS-ISAG comparison test.
005402588



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July 5, 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.

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 ALTAROBSON-ET 73953484** 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

NAME:	USA 73953484 M	BOMAZ ALTAROBSON-ET
DOB:	08/24/2015	Herd Mgt #: 1956
SIRE:	USA 72128125	EDG RUBICON-ET
DAM:	USA 72952118	BOMAZ BOB 6207-ET

HCD - Holstein Cholesterol Deficiency TC - This animal tested free of HCD	Recvd: 06/11/2018
DUMPS - Deficiency of Monophosphate Synthase TD - This animal tested Free of DUMPS	Recvd: 02/12/2016
BLAD - Bovine Leukocyte Adhesion Deficiency TL - This animal tested Free of BLAD	Recvd: 02/12/2016
POLD - Polled TP - This animal tested Free of Polled	Recvd: 06/11/2018
CVM - Complex Vertebral Malformation TV - This animal tested Free of CVM	Recvd: 02/12/2016
BRSP - Brachyspina TY - This animal tested free of BRSP	Recvd: 02/12/2016