

Supplementary Table S1: MAP associated loci from different genome wide association studies in dairy cows

The table shows the so far identified gene loci with an association to the MAP status for dairy cows and putative candidate genes from regions within 1 Mb of the SNPs from different genome wide association studies.

Breed	Test method for MAP status	Genomic region associated with MAP and putative candidate genes within 1 Mb of the SNPs	Author
US Holsteins	Culture from feces and necropsy tissue	Tissue: <u>BTA 3 (Pos.: 110682051bp)</u> Genes: 1Mb: <i>FOXJ3</i> , <i>EDN2</i> , <i>CTPS</i> , <i>CITED4</i> , <i>NFYC</i> Shedding: <u>BTA 9 (Pos.: 813310bp)</u> Genes: 1Mb = none	Settles <i>et al.</i> , 2009
Italian Holsteins	ELISA (ID-screen®)	<u>BTA 9 (Pos.: 46362363bp)</u> Genes: <i>PRMD1</i> or <i>Blimp1</i> <u>BTA 12 (Pos.: 69663832bp, 695599639bp)</u> Genes: ATP-binding cassette, subfamily C (<i>CFTR/MRP</i>), member 4 protein (<i>ABCC4</i>) <u>BTA 11 (Pos.: 89695127bp)</u> Genes: <i>E2F6</i> , <i>PQLC3</i> , <i>C2o50</i> , <i>KCNF1</i> , <i>PDIA6</i> , <i>ATP6V1C2</i> , <i>NOL10</i> , <i>ODC1</i> , <i>HPCAL1</i>	Minozzi <i>et al.</i> , 2010
US Holsteins	Milk or blood ELISA (Pourquier®)	<u>BTA 1 (Pos.: 40758982bp)</u> Genes: <i>TUBA3D</i> <u>BTA 5 (Pos.: 14416892bp, 14500783)</u> Genes: <i>CCDC59</i> , <i>TMTC2</i> <u>BTA 5 (Pos.: 37186379)</u>	Pant <i>et al.</i> , 2010

Genes: *FAM113B, AMIGO2, SLC38A4, SLC38A2, SLC38A1, SFRS2IP, ARID2*

BTA 5 (Pos.: 41512973bp)

Genes: *PRICKLE1, PPHLN1, ZCRB1, YAF2, GXYLT1v*

BTA 5 (Pos.: 87137388bp, 88577519bp, 88838035bp)

Genes: *TMTC1, OVCH1, ERGIC2, FAR2, TM7SF3, CCDC91, PTHLH, KLHDC5, RPS35, FGFR10P2, PPFIBP1, RNTL2, STK38L, MED21, ITPR2*

BTA 6 (Pos.: 108202550bp, 108228418bp)

Genes: *CRMP1, EVC, EVC2, STX18, STK32B, MSX1, CYTL1*

BTA 7 (Pos.: 17929919bp, 17957376bp, 17983797bp, 19746463bp)

Genes: *IRF1, IL5, IL13, IL4*

BTA7 (Pos.: 83397046bp)

Genes: *SSBP2, ATG10, XRCC4*

BTA 10 (Pos.: 51097099bp, 52944489bp, 52966013bp)

Genes: *NARG2, ANXA2, FOXB1, ADAM10, GRINL1A, BNIP2, GTF2A2, LIPC, TCF12, MYO1E, CCNB2, RNF111, AQP9*

BTA 10 (Pos.: 60612527)

Genes: *GLDN, SCG3, LYSMD2, TMOD2, TMOD3, LEO1, GNB5, MYO5C, AP4E1, TRPM7, USP50, USP8, GABPB2, HDC, SLC27A2*

BTA 11 (Pos.: 30601961bp)

Genes: *PRKCE, EPAS1, ATP6V1E2, PIGF, CRIPT, SOCS5, MCFD2, TTC7A, EPCAM, MSH2, KCNK12, MSH6, FBXO11*

BTA 11 (Pos.: 53982484bp, 54033703bp)

Genes: *ANGPT1, RABL4, RSPO2, EIF3E, TTC35, TMEM74, TRHR*

US Holsteins	Fecal culture or ELISA (Pourquier®)	BTA 3, BTA 6, BTA 14, BTA16, BTA 17, BTA 20, BTA 23, BTA 24, BTA 26	Kirkpatrick <i>et al.</i> , 2011
US and Italian Holsteins from the studies: Settles <i>et al.</i> , 2009 and Minozzi <i>et al.</i> , 2010	ELISA (ID-screen®) or Tissue culture	<u>BTA 1 (Pos.: 113617698bp, 113855358bp)</u> Genes. <i>SSRG, SCL33A1, KCNAB1, GMPS</i> <u>BTA 1 (Pos.: 3083368bp, 3083498bp)</u> Genes. <i>SOD1, HUNK, SFRS15</i> <u>BTA 6 (Pos.: 22013011bp)</u> Genes: 1Mb = none <u>BTA 7 (Pos.: 40664184bp)</u> Genes: 1Mb = none <u>BTA 9 (Pos.: 46362363bp)</u> Genes: <i>PRMD1</i> or <i>Blimp</i> <u>BTA 12 (Pos.: 69663832bp, 695599639bp)</u> ATP-binding cassette, subfamily C (<i>CFTR/MRP</i>), member 4 protein (<i>ABCC4</i>) <u>BTA 13 (Pos.: 659777384bp)</u> Genes: 1Mb = none <u>BTA 15 (Pos.: 66161046bp)</u> Genes: <i>LDLRAD3, PAMR1, CACNA1B, COMMD9</i> <u>BTA 16 (Pos.: 86317804bp)</u> Genes: 1Mb = none <u>BTA 21 (Pos.: 33135132bp)</u> Genes: 1Mb = none	Minozzi <i>et al.</i> , 2012

BTA. 22 (Pos.: 56087082bp)

Genes: 1Mb = none

BTA 23 (Pos.: 34108529bp)

Genes: 1Mb = none

BTA 25

Genes: 1Mb = none

Dutch Dairy Milk ELISA
cattle with (Pourquier®)
at least
75%
Holstein-
Friesian
genes

BTA 4 (Pos. 51425144bp)

Genes: *DLD, Q28899, LAMB4, Q6Q146, PNPLA8, LOC784535, Q2YDK7, Q17QP5, EPDR1*

BTA 15 (Pos.: 60 257030bp-60733532bp)

Genes: *KCNA4, FSHB, LOC787432, A5PJ77, CK046*

BTA 15 (Pos.: 22546064bp)

Genes: *A2VDX5, IRX5*

BTA 28 (Pos.: 11823511bp-11839054bp)

Genes: *_ACM3, Q3SX15, NSBTAG00000018960, ZNF25, ZNF334, LOC534200, ENSBTAG00000013592, BMS, RET, CSGALNACT, Q5E9S7*

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