

Table S10 Details of differentially expressed genes located within reported QTL regions for milk production traits

Gene	Location	Comparison	Traits (pubmed_id)
MX2	1:143119271-143155057	H10 vs H70	Milk protein yield (daughter deviation) (12487475)
BT.100456	11:92577650-92665089	H10 vs H70	Milk yield (18218765)
BT.88795	11:107260652-107261718	H10 vs H70	Milk fat percentage (EBV) (21048968)
CTNNA2, ENSBTAG00000047167	11:54723189-55906462	H10 vs H70	Milk protein yield (EBV) (18650300)
IFITM2	11:107191849-107203683	H10 vs H70	Milk fat percentage (EBV) (21048968)
CREM	13:18496783-18563503	H10 vs H70	Milk protein yield (EBV) (18650300)
SLC45A4	14:3711836-3740304	H10 vs H70	Milk fat percentage (EBV) (21048968);Milk fat yield (EBV) (18650300);Milk yield (EBV) (21048968)
SLA	14:9261889-9508938	H10 vs H70	Milk protein yield (EBV) (18650300);Milk yield (18218765);Milk yield (EBV) (18650300)
TRIB1	14:16353387-16361545	H10 vs H70	Milk fat percentage (EBV) (21749477)
H3F3C, PRKDC	14:21033276-21164037	H10 vs H70	Milk fat percentage (EBV) (21749477)
CA8	14:27637560-27719848	H10 vs H70	Milk protein yield (EBV) (21048968)
BT.44982, BT.91045	15:52255759-52271899	H10 vs H70	Milk protein percentage (21605784)
MUC15	15:57913543-58130615	H10 vs H70	Milk fat yield (EBV) (22303313);Milk protein yield (22303313);Milk protein yield (EBV) (22303313);Milk yield (22281351 22303313);Milk yield (EBV) (22303313)
LGR4	15:58873842-58977292	H10 vs H70	Milk fat yield (EBV) (22303313)
HIP1R	17:54915865-54946127	H10 vs H70	Milk protein percentage (18218765);Milk yield (18218765)
NDRG4	18:26340550-26383749	H10 vs H70	Milk fat yield (EBV) (21198698);Milk protein yield (EBV) (21198698)
DEDD2	18:51380782-51395993	H10 vs H70	Milk fat percentage (22281351);Milk protein percentage (22281351)
ENSBTAG00000006859	18:51735955-51789258	H10 vs H70	Milk protein percentage (22281351);Milk protein yield (EBV) (18650300)
CPD	19:22025795-22086708	H10 vs H70	Milk fat yield (EBV) (18650300);Milk yield (EBV) (18650300)
CCL8	19:16137673-16139707	H10 vs H70	Milk protein yield (EBV) (17433017);Milk yield (EBV) (17433017)
BT.27564	19:42877796-42888179	H10 vs H70	Milk protein percentage (22281351)
PTRF	19:43148012-43162165	H10 vs H70	Milk protein percentage (22281351)
IFIH10	2:34217172-34272473	H10 vs H70	Milk fat percentage (EBV) (21198698);Milk protein percentage (EBV) (21198698);Milk protein yield (EBV) (21198698);Milk yield (EBV) (21198698)
SLC30A2	2:127638450-127645772	H10 vs H70	Milk yield (18218765)
BT.66847	2:106877084-106940905	H10 vs H70	Milk yield (18218765)
EXTL1	2:127647570-127665188	H10 vs H70	Milk yield (18218765)

FYB	20:35176988-35347535	H10 vs H70	Milk fat yield (daughter deviation) (16751675);Milk protein percentage (daughter deviation) (16751675);Milk yield (daughter deviation) (16751675)
PRLR	20:38951596-39137480	H10 vs H70	Milk fat percentage (22281351);Milk protein percentage (EBV) (21048968);Milk protein yield (22281351);Milk yield (22281351)
SLC38A3	22:50702768-50717581	H10 vs H70	Milk protein yield (daughter deviation) (20172245);Milk yield (daughter deviation) (20172245)
SEMA3F	22:50733156-50769905	H10 vs H70	Milk protein yield (daughter deviation) (20172245);Milk yield (daughter deviation) (20172245)
LTB	23:27529855-27531864	H10 vs H70	Milk protein percentage (18218765)
IER3	23:28088455-28089722	H10 vs H70	Milk protein percentage (18218765)
TNF	23:27533910-27536674	H10 vs H70	Milk protein percentage (18218765)
DDR1	23:27975618-27991748	H10 vs H70	Milk protein percentage (18218765)
CIDEA	24:43231406-43233297	H10 vs H70	Milk yield (23031427)
NCF1	25:33267457-33282335	H10 vs H70	Milk protein percentage (21605784);Milk protein yield (EBV) (18650300)
DAGLB	25:38842843-38866581	H10 vs H70	Milk fat percentage (15377635);Milk protein yield (15377635);Milk yield (15377635)
IFIT2	26:11064495-11071316	H10 vs H70	Milk fat percentage (EBV) (21198698);Milk fat yield (EBV) (21198698);Milk protein percentage (EBV) (21198698);Milk yield (EBV) (21198698)
IFIT1, IFIT3	26:11079573-11110084	H10 vs H70	Milk fat percentage (EBV) (21198698);Milk fat yield (EBV) (21198698);Milk protein percentage (EBV) (21198698);Milk yield (EBV) (21198698)
IFIT5	26:11117505-11127464	H10 vs H70	Milk fat percentage (EBV) (21198698);Milk fat yield (EBV) (21198698);Milk protein percentage (EBV) (21198698);Milk yield (EBV) (21198698)
TACC2	26:42274440-42485654	H10 vs H70	Milk yield (EBV) (18650300)
KCNMA1	28:32807350-33587986	H10 vs H70	Milk fat yield (EBV) (18650300);Milk protein yield (EBV) (18650300);Milk yield (daughter deviation) (12487475)
MS4A8B	29:37622090-37654922	H10 vs H70	Milk fat percentage (22281351);Milk protein percentage (22281351)
TBC1D10C	29:45942057-45947879	H10 vs H70	Milk fat percentage (20942903);Milk protein percentage (20942903)
ALDH3B2	29:46143362-46150328	H10 vs H70	Milk fat percentage (20942903);Milk fat percentage (daughter deviation) (20822563);Milk fat yield (daughter deviation) (20822563);Milk protein percentage (19785908 20942903);Milk protein percentage (daughter deviation) (20822563);Milk protein yield (19785908);Milk protein yield (daughter deviation) (20822563);Milk yield (daughter deviation) (20822563)
S100A8	3:17146917-17147898	H10 vs H70	305 days milk yield (22535401);Milk fat percentage (11015574);Milk fat yield (11015574);Milk protein percentage (11015574 12416823);Milk yield (11015574)
MCOLN2	3:59286294-59351124	H10 vs H70	Milk fat yield (daughter deviation) (12487475)
HIVEP3	3:105213589-105268006	H10 vs H70	Milk protein yield (20855021);Milk yield (20855021)

S100A9	3:17176216-17179005	H10 vs H70	305 days milk yield (22535401);Milk fat percentage (11015574);Milk fat yield (11015574);Milk protein percentage (11015574 12416823);Milk yield (11015574)
SLC5A9	3:98567048-98595504	H10 vs H70	Milk protein yield (EBV) (18650300)
BT.64791	4:60940662-61125662	H10 vs H70	Milk yield (EBV) (18650300)
AGMO	4:23499625-23891236	H10 vs H70	Milk protein percentage (9649542)
BT.89244, ENSBTAG00000047605	4:99787243-99950827	H10 vs H70	Average daily milk yield (18650297);Milk fat percentage (20670403);Milk protein percentage (20670403);Milk protein yield (20670403);Milk yield (20670403)
NELL2	5:35656888-36042694	H10 vs H70	Milk yield (18298935)
AGAP2	5:56047710-56062903	H10 vs H70	Milk fat percentage (20812193);Milk fat yield (20812193);Milk protein percentage (20812193);Milk protein yield (20812193);Milk yield (20812193)
TIMP3	5:71475846-71926718	H10 vs H70	Milk fat yield (EBV) (21048968)
SCNN1A	5:104364799-104396610	H10 vs H70	Milk protein yield (daughter deviation) (12487475)
KIAA1467	5:97259780-97299577	H10 vs H70	Milk fat percentage (11015574)
ABCG2	6:37903128-38030583	H10 vs H70	Milk fat percentage (22486504);Milk protein percentage (22486504);Milk protein percentage (EBV) (21048968)
IL-8	6:90559881-90563647	H10 vs H70	Average daily milk yield (22614274)
CXCL2	6:90695493-90697557	H10 vs H70	Average daily milk yield (22614274);Milk yield (18218765)
CXCL2	6:90811061-90824841	H10 vs H70	Average daily milk yield (22614274);Milk yield (18218765)
HERC5	6:37681999-37728536	H10 vs H70	Milk protein percentage (EBV) (21048968)
BT.64160	7:19076009-19080237	H10 vs H70	Milk protein percentage (18218765);Milk yield (18218765)
EMR1, EMR4P	7:18709362-18834730	H10 vs H70	Milk protein percentage (18218765);Milk yield (18218765)
FAM189A2	8:45739649-45816965	H10 vs H70	Milk fat percentage (EBV) (21198698);Milk protein percentage (EBV) (21198698)
CNTFR	8:77260171-77299493	H10 vs H70	Milk yield (ECM) (23031337)
SLC28A3	8:78871654-78944400	H10 vs H70	Milk yield (ECM) (23031337)
MB21D2	1:75101341-75222153	H10 vs L10	Milk protein yield (daughter deviation) (12487475)
TNIK	1:96789066-97194010	H10 vs L10	Milk fat percentage (EBV) (21198698);Milk fat yield (EBV) (21198698);Milk protein yield (EBV) (21198698)
UBL5	1:154150027-154150249	H10 vs L10	Milk protein percentage (22281351);Milk yield (daughter deviation) (12487475)
BT.63066	10:92624409-92637043	H10 vs L10	Milk protein percentage (18218765);Milk yield (18218765)
MGC152281	11:10196558-10203502	H10 vs L10	Milk protein percentage (18218765);Milk yield (18218765)
SLC4A5	11:10283281-10405985	H10 vs L10	Milk protein percentage (18218765);Milk yield (18218765)
BT.100456	11:92577650-92665089	H10 vs L10	Milk yield (18218765)
BT.61865	11:98793227-98797809	H10 vs L10	Milk yield (21750913)
-	11:106807826-106808485	H10 vs L10	Milk fat percentage (EBV) (21048968)

BT.88795	11:107260652-107261718	H10 vs L10	Milk fat percentage (EBV) (21048968)
PTGES	11:100143652-100155090	H10 vs L10	Milk fat percentage (20200568 8056316);Milk protein yield (20655450);Milk yield (20655450 8056316)
-	11:106803193-106806277	H10 vs L10	Milk fat percentage (EBV) (21048968)
IFITM2	11:107191849-107203683	H10 vs L10	Milk fat percentage (EBV) (21048968)
-	12:76666283-76681652	H10 vs L10	Milk fat yield (22281351)
-	12:76683161-76706797	H10 vs L10	Milk fat yield (22281351)
-	12:76711292-76740082	H10 vs L10	Milk fat yield (22281351)
PRKCQ	13:17032506-17185063	H10 vs L10	Milk protein percentage (18218765);Milk yield (18218765)
PARD3	13:18851193-19337608	H10 vs L10	Milk protein yield (EBV) (18650300)
TGM2	13:67663137-67697607	H10 vs L10	Milk fat percentage (EBV) (21198698);Milk protein percentage (EBV) (21198698);Milk protein yield (EBV) (21198698);Milk yield (EBV) (21198698)
SLC45A4	14:3711836-3740304	H10 vs L10	Milk fat percentage (EBV) (21048968);Milk fat yield (EBV) (18650300);Milk yield (EBV) (21048968)
SLA	14:9261889-9508938	H10 vs L10	Milk protein yield (EBV) (18650300);Milk yield (18218765);Milk yield (EBV) (18650300)
LYN	14:24847256-24932198	H10 vs L10	Milk protein yield (EBV) (21749477)
LY6E	14:2624757-2628462	H10 vs L10	Milk fat percentage (12019241);Milk fat percentage (EBV) (21048968);Milk protein percentage (EBV) (21048968);Milk protein yield (EBV) (21048968);Milk yield (EBV) (21048968)
DENND3	14:3750705-3800766	H10 vs L10	Milk fat percentage (EBV) (21048968);Milk fat yield (EBV) (18650300);Milk yield (EBV) (21048968)
-	14:16161543-16181355	H10 vs L10	Milk fat percentage (EBV) (21749477)
TRIB1	14:16353387-16361545	H10 vs L10	Milk fat percentage (EBV) (21749477)
PCMTD1	14:22639959-22717584	H10 vs L10	Milk fat percentage (EBV) (21749477)
CA8	14:27637560-27719848	H10 vs L10	Milk protein yield (EBV) (21048968)
TM7SF4	14:62215197-62463870	H10 vs L10	Milk fat yield (22281351);Milk protein yield (EBV) (21749477)
SNTB1	14:84253918-84504093	H10 vs L10	Milk protein yield (daughter deviation) (12487475);Milk yield (18218765)
NUP98	15:52097534-52183246	H10 vs L10	Milk protein percentage (21605784)
MUC15	15:57913543-58130615	H10 vs L10	Milk fat yield (EBV) (22303313);Milk protein yield (22303313);Milk protein yield (EBV) (22303313);Milk yield (22281351 22303313);Milk yield (EBV) (22303313)
RILPL2	17:54425951-54457510	H10 vs L10	Milk protein percentage (18218765);Milk yield (18218765)
HIP1R	17:54915865-54946127	H10 vs L10	Milk protein percentage (18218765);Milk yield (18218765)
SDSL	17:63278103-63292006	H10 vs L10	Milk protein yield (12605852)
NDRG4	18:26340550-26383749	H10 vs L10	Milk fat yield (EBV) (21198698);Milk protein yield (EBV) (21198698)
ZNF507	18:43030188-43068295	H10 vs L10	Milk yield (18218765)

DEDD2	18:51380782-51395993	H10 vs L10	Milk fat percentage (22281351);Milk protein percentage (22281351)
POU2F2	18:51467222-51497957	H10 vs L10	Milk fat percentage (22281351);Milk protein percentage (22281351)
CD79A	18:51679283-51682971	H10 vs L10	Milk protein percentage (22281351);Milk protein yield (EBV) (18650300)
DYNLL2	19:9118007-9125251	H10 vs L10	Milk fat yield (EBV) (18650300)
CPD	19:22025795-22086708	H10 vs L10	Milk fat yield (EBV) (18650300);Milk yield (EBV) (18650300)
GOSR1	19:22108501-22140940	H10 vs L10	Milk fat yield (EBV) (18650300);Milk yield (EBV) (18650300)
STAT5A	19:43033596-43054075	H10 vs L10	Milk protein percentage (22281351)
HSD17B1	19:43268325-43270819	H10 vs L10	Milk protein percentage (22281351)
BT.62349	19:8900989-8974286	H10 vs L10	Milk fat yield (EBV) (18650300)
CCL8	19:16137673-16139707	H10 vs L10	Milk protein yield (EBV) (17433017);Milk yield (EBV) (17433017)
-	19:22099346-22104985	H10 vs L10	Milk fat yield (EBV) (18650300);Milk yield (EBV) (18650300)
STAT3	19:43056659-43132624	H10 vs L10	Milk protein percentage (22281351)
PTRF	19:43148012-43162165	H10 vs L10	Milk protein percentage (22281351)
ICAM2	19:48857449-48889758	H10 vs L10	Milk protein percentage (18218765)
MSTN	2:6213565-6220196	H10 vs L10	Milk fat yield (21700058);Milk protein yield (21700058)
CCDC141	2:17791921-18014475	H10 vs L10	Milk fat yield (daughter deviation) (12487475)
IFIH10	2:34217172-34272473	H10 vs L10	Milk fat percentage (EBV) (21198698);Milk protein percentage (EBV) (21198698);Milk protein yield (EBV) (21198698);Milk yield (EBV) (21198698)
FAP	2:34297725-34376828	H10 vs L10	Milk fat percentage (EBV) (21198698);Milk protein percentage (EBV) (21198698);Milk protein yield (EBV) (21198698);Milk yield (EBV) (21198698)
BT.30256	2:86410859-86427846	H10 vs L10	Milk fat percentage (daughter deviation) (17033032);Milk protein percentage (daughter deviation) (17033032);Milk protein yield (17033032);Milk protein yield (EBV) (18650300)
CYP27A1	2:107462686-107504968	H10 vs L10	Milk fat percentage (EBV) (21198698);Milk protein percentage (EBV) (21198698);Milk protein yield (EBV) (21198698);Milk yield (EBV) (21198698)
SLC30A2	2:127638450-127645772	H10 vs L10	Milk yield (18218765)
C2ORF80	2:96867886-96890885	H10 vs L10	Milk fat percentage (EBV) (21198698);Milk fat yield (EBV) (21198698);Milk protein percentage (EBV) (21198698);Milk protein yield (EBV) (21198698);Milk yield (EBV) (21198698)
MAN1C1	2:127888645-128008111	H10 vs L10	Milk yield (18218765)
BT.22214	20:12352170-12366624	H10 vs L10	Milk yield (ECM) (23031337)
BT.78334	20:33688290-33721667	H10 vs L10	Milk fat yield (22281351);Milk fat yield (daughter deviation) (16751675);Milk protein percentage (22281351);Milk protein percentage (daughter deviation) (16751675);Milk yield (22281351)

TTC33	20:33721921-33747493	H10 vs L10	Milk fat yield (22281351);Milk fat yield (daughter deviation) (16751675);Milk protein percentage (22281351);Milk protein percentage (daughter deviation) (16751675);Milk yield (22281351)
FYB	20:35176988-35347535	H10 vs L10	Milk fat yield (daughter deviation) (16751675);Milk protein percentage (daughter deviation) (16751675);Milk yield (daughter deviation) (16751675)
RICTOR	20:35376523-35514741	H10 vs L10	Milk fat percentage (daughter deviation) (16751675);Milk protein percentage (11768096);Milk protein percentage (EBV) (21048968);Milk protein percentage (daughter deviation) (16751675)
PRLR	20:38951596-39137480	H10 vs L10	Milk fat percentage (22281351);Milk protein percentage (EBV) (21048968);Milk protein yield (22281351);Milk yield (22281351)
SNX18	20:24564479-24596518	H10 vs L10	Milk fat percentage (20528848);Milk fat yield (daughter deviation) (20528848);Milk protein percentage (20528848);Milk protein yield (daughter deviation) (20528848);Milk yield (22281351);Milk yield (daughter deviation) (20528848)
BT.83070	20:26116746-26227530	H10 vs L10	Milk fat yield (22281351)
RAI14	20:39352840-39515205	H10 vs L10	Milk fat percentage (22281351);Milk fat yield (22281351);Milk protein percentage (22281351);Milk protein percentage (EBV) (21048968);Milk protein yield (22281351);Milk yield (18218765 22281351)
-	20:40431781-40435815	H10 vs L10	Milk protein percentage (22281351)
WHAMM	21:23546101-23564527	H10 vs L10	Milk protein percentage (11290723 20942903)
MFGE8	21:20889912-20920858	H10 vs L10	Milk protein percentage (18218765)
FSD2	21:23501905-23545813	H10 vs L10	Milk protein percentage (11290723 20942903)
HOMER2	21:23577845-23668524	H10 vs L10	Milk protein percentage (11290723 20942903)
TMF1	22:32610464-32640830	H10 vs L10	Milk protein percentage (12416823)
CISH	22:50320204-50325617	H10 vs L10	Milk protein yield (daughter deviation) (20172245);Milk yield (daughter deviation) (20172245)
BT.56096	22:50577798-50586504	H10 vs L10	Milk protein yield (daughter deviation) (20172245);Milk yield (daughter deviation) (20172245)
BT.102977	22:12520392-12532806	H10 vs L10	Milk fat percentage (12416823)
SEMA3B	22:50655647-50662413	H10 vs L10	Milk protein yield (daughter deviation) (20172245);Milk yield (daughter deviation) (20172245)
SLC38A3	22:50702768-50717581	H10 vs L10	Milk protein yield (daughter deviation) (20172245);Milk yield (daughter deviation) (20172245)
SEMA3F	22:50733156-50769905	H10 vs L10	Milk protein yield (daughter deviation) (20172245);Milk yield (daughter deviation) (20172245)
VEGFA	23:17255946-17269998	H10 vs L10	Milk protein yield (EBV) (18650300)
NOTCH4	23:26973190-27001754	H10 vs L10	305 days milk yield (22155013);Milk fat percentage (22155013);Milk protein percentage (22155013)

AGER	23:27008830-27011946	H10 vs L10	305 days milk yield (22155013);Milk fat percentage (22155013);Milk protein percentage (22155013)
LTB	23:27529855-27531864	H10 vs L10	Milk protein percentage (18218765)
MGC126945	23:27600054-27604052	H10 vs L10	Milk protein percentage (18218765)
IER3	23:28088455-28089722	H10 vs L10	Milk protein percentage (18218765)
MBOAT1	23:37498571-37614367	H10 vs L10	Milk protein percentage (22281351)
NFKBIE, SLC35B2	23:17874862-17887291	H10 vs L10	Milk fat yield (22916942)
BT.105154	23:27175688-27196793	H10 vs L10	305 days milk yield (22155013);Milk fat percentage (22155013);Milk protein percentage (22155013)
SNORD52	23:27325037-27326174	H10 vs L10	305 days milk yield (22155013);Milk fat percentage (22155013);Milk protein percentage (18218765 22155013)
-	23:27524517-27527023	H10 vs L10	Milk protein percentage (18218765)
CYB5A	24:4413367-4445873	H10 vs L10	Milk fat percentage (EBV) (19841231);Milk protein yield (EBV) (19841231)
TGIF1	24:37940261-37948732	H10 vs L10	Milk protein percentage (18218765)
BT.101003	24:43111843-43163936	H10 vs L10	Milk yield (23031427)
RIOK3	24:33523339-33545584	H10 vs L10	Milk fat percentage (EBV) (21198698);Milk fat yield (EBV) (21198698);Milk protein percentage (EBV) (21198698);Milk protein yield (EBV) (21198698)
CIDEA	24:43231406-43233297	H10 vs L10	Milk yield (23031427)
CPPED1	25:11462166-11602915	H10 vs L10	Milk protein yield (23031427)
NCF1	25:33267457-33282335	H10 vs L10	Milk protein percentage (21605784);Milk protein yield (EBV) (18650300)
DAGLB	25:38842843-38866581	H10 vs L10	Milk fat percentage (15377635);Milk protein yield (15377635);Milk yield (15377635)
SLC16A12	26:11141010-11169619	H10 vs L10	Milk fat percentage (EBV) (21198698);Milk fat yield (EBV) (21198698);Milk protein percentage (EBV) (21198698);Milk yield (EBV) (21198698)
AP3M2	27:36716828-36734481	H10 vs L10	Milk protein percentage (18218765);Milk yield (18218765)
IKBKB	27:36813158-36865778	H10 vs L10	Milk protein percentage (18218765);Milk yield (18218765)
POLB	27:36877979-36902798	H10 vs L10	Milk protein percentage (18218765);Milk yield (18218765)
VDAC5P	27:36921285-36933273	H10 vs L10	Milk protein percentage (18218765);Milk yield (18218765)
ARID5B	28:18003693-18191994	H10 vs L10	Milk fat percentage (EBV) (21198698);Milk protein percentage (EBV) (21198698);Milk protein yield (EBV) (21198698);Milk yield (EBV) (21198698)
PPIF	28:35167544-35173642	H10 vs L10	Milk protein percentage (18218765);Milk yield (18218765)
PPA1	28:26576201-26614511	H10 vs L10	Milk protein yield (EBV) (18650300)
-	29:44297409-44299689	H10 vs L10	Milk protein percentage (21605784)

-	29:46717120-46717697	H10 vs L10	Milk fat percentage (daughter deviation) (20822563);Milk fat yield (daughter deviation) (20822563);Milk protein percentage (19785908);Milk protein percentage (daughter deviation) (20822563);Milk protein yield (19785908);Milk protein yield (daughter deviation) (20822563);Milk yield (daughter deviation) (20822563)
CLCF1	29:45910396-45912701	H10 vs L10	Milk fat percentage (20942903);Milk protein percentage (20942903)
ALDH3B2	29:46143362-46150328	H10 vs L10	Milk fat percentage (20942903);Milk fat percentage (daughter deviation) (20822563);Milk fat yield (daughter deviation) (20822563);Milk protein percentage (19785908 20942903);Milk protein percentage (daughter deviation) (20822563);Milk protein yield (19785908);Milk protein yield (daughter deviation) (20822563);Milk yield (daughter deviation) (20822563)
CHKA	29:46225619-46281621	H10 vs L10	Milk fat percentage (20942903);Milk fat percentage (daughter deviation) (20822563);Milk fat yield (daughter deviation) (20822563);Milk protein percentage (19785908 20942903);Milk protein percentage (daughter deviation) (20822563);Milk protein yield (19785908);Milk protein yield (daughter deviation) (20822563);Milk yield (daughter deviation) (20822563)
BT.30964	29:46315559-46381073	H10 vs L10	Milk fat percentage (20942903);Milk fat percentage (daughter deviation) (20822563);Milk fat yield (daughter deviation) (20822563);Milk protein percentage (19785908 20942903);Milk protein percentage (daughter deviation) (20822563);Milk protein yield (19785908);Milk protein yield (daughter deviation) (20822563);Milk yield (daughter deviation) (20822563)
S100A8	3:17146917-17147898	H10 vs L10	305 days milk yield (22535401);Milk fat percentage (11015574);Milk fat yield (11015574);Milk protein percentage (11015574 12416823);Milk yield (11015574)
BT.76892	3:20656592-20712080	H10 vs L10	Milk protein percentage (daughter deviation) (14762092)
BT.24012	3:55063829-55085745	H10 vs L10	Milk protein percentage (18218765);Milk yield (18218765)
BT.39806	3:55179368-55210377	H10 vs L10	Milk protein percentage (18218765);Milk yield (18218765)
MCOLN2	3:59286294-59351124	H10 vs L10	Milk fat yield (daughter deviation) (12487475)
LPAR3	3:59377051-59459794	H10 vs L10	Milk protein percentage (9649542);Milk yield (daughter deviation) (14762092)
BT.42861	3:98370382-98536867	H10 vs L10	Milk protein yield (EBV) (18650300)
HIVEP3	3:105213589-105268006	H10 vs L10	Milk protein yield (20855021);Milk yield (20855021)
C1ORF51	3:20400968-20404346	H10 vs L10	Milk protein percentage (daughter deviation) (14762092)
BT.64791	4:60940662-61125662	H10 vs L10	Milk yield (EBV) (18650300)
TMEM140	4:99699887-99719088	H10 vs L10	Average daily milk yield (18650297);Milk fat percentage (20670403);Milk protein percentage (20670403);Milk protein yield (20670403);Milk yield (20670403)

C4H7orf41	4:66610954-66643765	H10 vs L10	Milk fat percentage (EBV) (21198698);Milk fat yield (EBV) (21198698);Milk protein percentage (EBV) (21198698);Milk protein yield (EBV) (21198698)
JHDM1D	4:104370183-104520655	H10 vs L10	Milk fat percentage (EBV) (21198698);Milk protein percentage (EBV) (21198698);Milk protein yield (EBV) (21198698);Milk yield (EBV) (21198698)
BT.61412	5:32550520-32606144	H10 vs L10	Milk fat percentage (22281351);Milk protein yield (22281351);Milk yield (22281351)
NELL2	5:35656888-36042694	H10 vs L10	Milk yield (18298935)
AVIL	5:55983553-56002079	H10 vs L10	Milk fat percentage (20812193);Milk fat yield (20812193);Milk protein percentage (20812193);Milk protein yield (20812193);Milk yield (20812193)
TIMP3	5:71475846-71926718	H10 vs L10	Milk fat yield (EBV) (21048968)
NCF4	5:75641216-75659769	H10 vs L10	Milk protein percentage (EBV) (21048968)
CSF2RB	5:75724562-75745890	H10 vs L10	Milk protein percentage (EBV) (21048968)
ACRBP	5:104153957-104161646	H10 vs L10	Milk protein yield (daughter deviation) (12487475)
LPAR5	5:104163206-104173568	H10 vs L10	Milk protein yield (daughter deviation) (12487475)
SCNN1A	5:104364799-104396610	H10 vs L10	Milk protein yield (daughter deviation) (12487475)
VWF	5:104603431-104727301	H10 vs L10	Milk protein yield (daughter deviation) (12487475)
SLC48A1	5:32630915-32676306	H10 vs L10	Milk fat percentage (22281351);Milk protein yield (22281351);Milk yield (22281351)
FAM113B	5:33141573-33339728	H10 vs L10	Milk fat yield (23031427);Milk yield (23031427)
SLC16A7	5:53987908-54214799	H10 vs L10	305 days milk yield (21948746);Milk fat yield (21948746);Milk protein yield (21948746)
FOXRED2	5:75275059-75293236	H10 vs L10	Milk yield (ECM) (23031337)
PIK3C2G	5:91835145-92300259	H10 vs L10	Milk protein percentage (21605784)
APOLD1	5:97520909-97526540	H10 vs L10	Milk fat percentage (11015574)
GABARAPL10	5:100205185-100215034	H10 vs L10	Milk fat percentage (EBV) (21198698);Milk fat yield (EBV) (21198698);Milk protein percentage (EBV) (21198698);Milk protein yield (EBV) (21198698);Milk yield (EBV) (21198698)
BT.98677	5:104273437-104300410	H10 vs L10	Milk protein yield (daughter deviation) (12487475)
ENSBTAG00000003367	5:114966365-115060319	H10 vs L10	Milk fat yield (15377635)
ABCG2	6:37903128-38030583	H10 vs L10	Milk fat percentage (22486504);Milk protein percentage (22486504);Milk protein percentage (EBV) (21048968)
BT.22022	6:58486539-58565108	H10 vs L10	Milk protein percentage (18218765);Milk protein yield (19603057);Milk yield (19603057)
IL-8	6:90559881-90563647	H10 vs L10	Average daily milk yield (22614274)
CXCL6	6:90645963-90648076	H10 vs L10	Average daily milk yield (22614274)
CXCL2	6:90695493-90697557	H10 vs L10	Average daily milk yield (22614274);Milk yield (18218765)
CXCL2	6:90811061-90824841	H10 vs L10	Average daily milk yield (22614274);Milk yield (18218765)

HERC5	6:37681999-37728536	H10 vs L10	Milk protein percentage (EBV) (21048968)
HERC6	6:37736092-37793279	H10 vs L10	Milk protein percentage (EBV) (21048968)
RELL10	6:58565924-58660258	H10 vs L10	Milk protein percentage (18218765);Milk protein yield (19603057);Milk yield (19603057)
RASSF6	6:90373216-90429759	H10 vs L10	Average daily milk yield (22614274)
ANTXR2	6:96346731-96526016	H10 vs L10	Milk protein percentage (18218765)
PRKG2	6:97652568-9775756	H10 vs L10	Milk yield (ECM) (23031337)
RASGEF1B	6:97967085-98026691	H10 vs L10	Milk yield (ECM) (23031337)
TAPT1	6:116194012-116241336	H10 vs L10	Milk protein percentage (15377635);Milk protein yield (15377635);Milk protein yield (daughter deviation) (11167525)
HOOK2	7:13862727-13874728	H10 vs L10	Milk fat percentage (18218768);Milk fat yield (18218768);Milk protein yield (18218768)
BT.64160	7:19076009-19080237	H10 vs L10	Milk protein percentage (18218765);Milk yield (18218765)
SAFB2	7:19908340-19936959	H10 vs L10	Milk fat yield (9891277)
CEP120	7:31688461-31774451	H10 vs L10	Milk fat yield (daughter deviation) (21054834);Milk protein yield (daughter deviation) (21054834);Milk yield (daughter deviation) (21054834)
MGC128424	7:64133811-64153713	H10 vs L10	Milk protein percentage (12416823)
GPX3	7:64286947-64295116	H10 vs L10	Milk protein percentage (12416823)
NFIX	7:13592199-13685027	H10 vs L10	Milk fat percentage (18218768);Milk fat yield (18218768);Milk protein yield (18218768)
JUNB	7:13851130-13852933	H10 vs L10	Milk fat percentage (18218768);Milk fat yield (18218768);Milk protein yield (18218768)
EMR1, EMR4P	7:18709362-18834730	H10 vs L10	Milk protein percentage (18218765);Milk yield (18218765)
VAV1	7:18866560-18937070	H10 vs L10	Milk protein percentage (18218765);Milk yield (18218765)
TRIP10	7:18967188-18970399	H10 vs L10	Milk protein percentage (18218765);Milk yield (18218765)
BT.89338	7:64054327-64065549	H10 vs L10	Milk protein percentage (12416823)
TNIP1	7:64295656-64339418	H10 vs L10	Milk protein percentage (12416823)
BT.91925	8:29860275-30155742	H10 vs L10	Milk fat percentage (EBV) (21048968)
BT.29711	8:45568974-45696886	H10 vs L10	Milk fat percentage (EBV) (21198698);Milk protein percentage (EBV) (21198698)
FAM189A2	8:45739649-45816965	H10 vs L10	Milk fat percentage (EBV) (21198698);Milk protein percentage (EBV) (21198698)
SLC28A3	8:78871654-78944400	H10 vs L10	Milk yield (ECM) (23031337)
ZCCHC6	8:80842964-80900965	H10 vs L10	Milk protein yield (EBV) (18650300)
-	14:16304446-16310988	H70 vs L70	Milk fat percentage (EBV) (21749477)
MSTN	2:6213565-6220196	H70 vs L70	Milk fat yield (21700058);Milk protein yield (21700058)
LTB	23:27529855-27531864	H70 vs L70	Milk protein percentage (18218765)

BT.64791	4:60940662-61125662	H70 vs L70	Milk yield (EBV) (18650300)
SLC45A4	14:3711836-3740304	L10 vs L70	Milk fat percentage (EBV) (21048968);Milk fat yield (EBV) (18650300);Milk yield (EBV) (21048968)
-	14:3740839-3741290	L10 vs L70	Milk fat percentage (EBV) (21048968);Milk fat yield (EBV) (18650300);Milk yield (EBV) (21048968)
SLA	14:9261889-9508938	L10 vs L70	Milk protein yield (EBV) (18650300);Milk yield (18218765);Milk yield (EBV) (18650300)
BT.44982BT.91045	15:52255759-52271899	L10 vs L70	Milk protein percentage (21605784)
KREMEN1	17:70551640-70601539	L10 vs L70	Milk protein percentage (18218765);Milk yield (18218765)
HIP1R	17:54915865-54946127	L10 vs L70	Milk protein percentage (18218765);Milk yield (18218765)
DEDD2	18:51380782-51395993	L10 vs L70	Milk fat percentage (22281351);Milk protein percentage (22281351)
CPD	19:22025795-22086708	L10 vs L70	Milk fat yield (EBV) (18650300);Milk yield (EBV) (18650300)
-	19:22099346-22104985	L10 vs L70	Milk fat yield (EBV) (18650300);Milk yield (EBV) (18650300)
-	22:50382529-50388265	L10 vs L70	Milk protein yield (daughter deviation) (20172245);Milk yield (daughter deviation) (20172245)
BT.102977	22:12520392-12532806	L10 vs L70	Milk fat percentage (12416823)
HSPA1A	23:27326253-27333698	L10 vs L70	305 days milk yield (22155013);Milk fat percentage (22155013);Milk protein percentage (18218765 22155013)
KCNMA1	28:32807350-33587986	L10 vs L70	Milk fat yield (EBV) (18650300);Milk protein yield (EBV) (18650300);Milk yield (daughter deviation) (12487475)
TBC1D10C	29:45942057-45947879	L10 vs L70	Milk fat percentage (20942903);Milk protein percentage (20942903)
S100A8	3:17146917-17147898	L10 vs L70	305 days milk yield (22535401);Milk fat percentage (11015574);Milk fat yield (11015574);Milk protein percentage (11015574 12416823);Milk yield (11015574)
S100A9	3:17176216-17179005	L10 vs L70	305 days milk yield (22535401);Milk fat percentage (11015574);Milk fat yield (11015574);Milk protein percentage (11015574 12416823);Milk yield (11015574)
SLC5A9	3:98567048-98595504	L10 vs L70	Milk protein yield (EBV) (18650300)
AVIL	5:55983553-56002079	L10 vs L70	Milk fat percentage (20812193);Milk fat yield (20812193);Milk protein percentage (20812193);Milk protein yield (20812193);Milk yield (20812193)
AGAP2	5:56047710-56062903	L10 vs L70	Milk fat percentage (20812193);Milk fat yield (20812193);Milk protein percentage (20812193);Milk protein yield (20812193);Milk yield (20812193)
FAM113B	5:33141573-33339728	L10 vs L70	Milk fat yield (23031427);Milk yield (23031427)
PPARGC1A	6:44854112-44960668	L10 vs L70	Milk protein yield (22486504);Milk yield (22486504)
EMR1, EMR4P	7:18709362-18834730	L10 vs L70	Milk protein percentage (18218765);Milk yield (18218765)