

Table S2 Genes tested for association with milk and mastitis traits.

Mouse		Human homolog		Cattle homolog		Gene name		Reference
Gene	Chr.	Gene	Chr.	Gene	Chr.	Location (bp)		
Association-milk traits								
<i>Pou1f1</i>	16	<i>POU1F1</i>	3 (p11)	<i>POU1F1</i>	1	35,749,100-35,769,000	<i>POU class 1 homeobox 1</i>	Huang <i>et al.</i> 2008
<i>Stat1</i>	1	<i>STAT1</i>	2 (q32.2)	<i>STAT1</i>	2	83,359,000-83,440,000	<i>signal transducer and activator of transcription 1</i>	Cobanoglu <i>et al.</i> 2006
<i>Lep</i>	6	<i>LEP</i>	7 (q31.3)	<i>LEP</i>	4	95,665,000-95,707,000	<i>leptin</i>	Leifers <i>et al.</i> 2005 Banos <i>et al.</i> 2008 Chebel <i>et al.</i> 2008
<i>Olr1</i>	6	<i>OLR1</i>	12 (p13.2-p12.3)	<i>OLR1</i>	5	107,277,400 - 107,305,700	<i>oxidized low density lipoprotein (lectin-like) receptor 1</i>	Khatib <i>et al.</i> 2006
<i>Pparg1a</i>	5	<i>PPARGC1A</i>	4 (p15.1)	<i>PPARGC1A</i>	6	44,652,000-44,919,000	<i>peroxisome proliferative activated receptor, gamma, coactivator 1 alpha</i>	Weikard <i>et al.</i> 2005
<i>Abcg2</i>	6	<i>ABCG2</i>	4 (q22)	<i>ABCG2</i>	6	37,298,000-37,475,000	<i>ATP-binding cassette, sub-family G (WHITE), member 2</i>	Olsen <i>et al.</i> 2007 Ron <i>et al.</i> 2006 Cohen-Zinder <i>et al.</i> 2005
<i>Spp1</i>	5	<i>SPP1</i>	4 (q21-q25)	<i>SPP1</i>	6	37,506,500-37,523,900	<i>secreted phosphoprotein 1 (osteopontin)</i>	Leonard <i>et al.</i> 2005
<i>Csn1s1</i>	5	<i>CSN1S1</i>	4 (q21.1)	<i>CSN1S1</i>	6	88,511,600-88,544,300	<i>casein alpha s1</i>	Sanders <i>et al.</i> 2006 Kuss <i>et al.</i> 2005 Prinzenberg <i>et al.</i> 2003
<i>Csn3</i>	5	<i>CSN3</i>	4 (q21.1)	<i>CSN3</i>	6	88,278,000-88,322,000	<i>casein kappa</i>	Kaminski <i>et al.</i> 2006 Robitaille <i>et al.</i> 2007 Kaminski <i>et al.</i> 2008
NA	NA	NA	NA	<i>LGB</i>	11	107,163,200 - 107,175,000	<i>lactoglobulin, beta</i>	Kuss <i>et al.</i> 2003 Ganai <i>et al.</i> 2008

<i>Dgat1</i>	15	<i>DGATI</i>	8 (q24.3)	<i>DGATI</i>	14	442.100- 448.800	<i>diacylglycerol O-acyltransferase 1</i>	Kaminski <i>et al.</i> 2006 Grisart <i>et al.</i> 2002 Kaupé <i>et al.</i> 2007 Banos <i>et al.</i> 2008 Kaminski <i>et al.</i> 2008 Anton <i>et al.</i> 2008 Hradecka <i>et al.</i> 2008
<i>Cyp11b1</i>	¹⁵ (44.9 cM)	<i>CYP11B1</i>	<u>8 (q21)</u>	<i>CYP11B1</i>	14	1,294,000- 1,303,600	<i>cytochrome P450, subfamily XI B, polypeptide 1</i>	Kaupé <i>et al.</i> , 2007
<i>Fgf2</i>	³ (19.3 cM)	<i>FGF2</i>	4 (q26- q27)	<i>FGF2</i>	17	36,954,000- 36,961,600	<i>fibroblast growth factor 2 (basic)</i>	Wang <i>et al.</i> 2008
<i>Nod2</i>	⁸ (C3)	<i>NOD2</i>	16 (q21)	<i>NOD2</i>	18	18,141,400- 18,148,000	<i>nucleotide-binding oligomerization domain containing 2</i>	Pant <i>et al.</i> 2007
<i>Fasn</i>	11	<i>FASN</i>	17 (q25)	<i>FASN</i>	19	49,659,250- 49,662,020	<i>fatty acid synthase</i>	Morris <i>et al.</i> 2007
<i>Stat5a</i>	11	<i>STAT5A</i>	17 (q11.2)	<i>STAT5A</i>	19	43,713,000- 43,764,000	<i>signal transducer and activator of transcription 5A</i>	Brym <i>et al.</i> 2004 Khatib <i>et al.</i> 2008
<i>Gh</i>	11	<i>GHI</i>	17 (q24.2)	<i>GHI</i>	19	52,158,000- 52,203,000	<i>growth hormone</i>	Zhou <i>et al.</i> 2005
<i>Ccl2</i>	¹¹ (46.5 cM)	<i>CCL2</i>	17 (q11.2- q12)	<i>CCL2</i>	19	15,182,340- 15,187,010	<i>chemokine (C-C motif) ligand 2</i>	Leyva-Baca <i>et al.</i> 2007
<i>Ghr</i>	15	<i>GHR</i>	5 (p13- p12)	<i>GHR</i>	20	33,770,000- 34,200,000	<i>growth hormone receptor</i>	Blott <i>et al.</i> 2003 Kaminski <i>et al.</i> 2006 Kaminski <i>et al.</i> 2008 Hradecka <i>et al.</i> , 2008
<i>Serpina1</i>	12	<i>SERPINA1</i>	14 (q32.1)	<i>SERPINA1</i>	21	59,296,400- 59,319,900	<i>serine protease inhibitor</i>	Khatib <i>et al.</i> 2005
<i>Ltf</i>	9	<i>LTF</i>	3 (q21- q23)	<i>LTF</i>	22	54,289,000- 54,372,000	<i>lactoferrin</i>	Kaminski <i>et al.</i> 2006 Kaminski <i>et al.</i> 2008
<i>Prl</i>	13	<i>PRL</i>	6 (p22.2- p21.3)	<i>PRL</i>	23	35,566,300- 35,587,800	<i>prolactin</i>	Brym <i>et al.</i> 2005 He <i>et al.</i> 2006

NA	NA	NA	NA	BoLA-DRB3	23	40 M	major histocompatibility complex, class II, DRB3	Sharif <i>et al.</i> 1999 do Nascimento <i>et al.</i> 2006 Rupp <i>et al.</i> 2007
Scd2	19 (43.0 cM)	SCD	10 (q24.31)	SCD	26	20M	stearoyl-CoA desaturase (<i>delta</i> -9-desaturase)	Macciotta <i>et al.</i> 2008
Association-mastitis traits								
<i>Il8rb</i>	1	<i>IL8RB</i>	2 (q35)	<i>IL8RB</i>	2	110.580.400- 110.599.100	<i>interleukin 8 receptor, beta</i>	Youngermann <i>et al.</i> 2004
<i>Il8ra</i>	1	<i>IL8RA</i>	2 (q35)	<i>IL8RA</i>	2	110.614.800- 110.619.100	<i>interleukin 8 receptor, alpha</i>	Rambeaud and Pighetti 2007 Leyva-Bacca <i>et al.</i> 2008
<i>Tlr4</i>	4	<i>TLR4</i>	9 (q32-q33)	<i>TLR4</i>	8	112.418.500- 112.446.100	<i>toll-like receptor 4</i>	Sharma <i>et al.</i> 2006b Wang <i>et al.</i> 2007
<i>Fezf2</i>	14	<i>FEZF2</i>	3 (p14.2)	<i>FEZF2</i>	22	39.843.600- 39.855.300	<i>fez family zinc finger 2</i>	Sugimoto <i>et al.</i> 2006
<i>Ltf</i>	9	<i>LTF</i>	3 (q21-q23)	<i>LTF</i>	22	54.289.000- 54.372.000	<i>lactoferrin</i>	Wojdak-Maksimiec <i>et al.</i> 2006
NA	NA	NA	NA	BoLA-DRB3	23	26.307.000- 26.382.000	major histocompatibility complex, class II, DRB3	Sharif <i>et al.</i> 1998 do Nascimento <i>et al.</i> 2006 Rupp <i>et al.</i> 2007
<i>Fgf2</i>	3 (19.3 cM)	<i>FGF2</i>	4 (q26-q27)	<i>FGF2</i>	17	36.954.000- 36.961.600	<i>fibroblast growth factor 2 (basic)</i>	Wang <i>et al.</i> 2008
<i>Nod2</i>	8 (C3)	<i>NOD2</i>	16 (q21)	<i>NOD2</i>	18	18.141.400- 18.148.000	<i>nucleotide-binding oligomerization domain containing 2</i>	Pant <i>et al.</i> 2007
<i>Ccr2</i>	9 (71.9 cM)	<i>CCR2</i>	3 (p21.31)	<i>CCR2</i>	22	54.404.230- 54.405.620	<i>chemokine (C-C motif) receptor 2</i>	Leyva-Baca <i>et al.</i> 2007
<i>Cyp11b1</i>	15 (44.9 cM)	<i>CYP11B1</i>	8 (q21)	<i>CYP11B1</i>	14	1.294.000- 1.303.600	<i>cytochrome P450, subfamily XI B, polypeptide I</i>	Kaube <i>et al.</i> 2007

NA, not available; M, location in mega base-pairs identified using bovine-human synteny map.