

**Table 3.** Detailed information regarding gene and microsatellite markers mapped on the ECA21 contig including Ensembl or horse EST ID of sequence used for primer design, amplicon sizes, and PCR conditions (TD designates that a touchdown program was used).

Accession number	Ensembl/Horse EST ID	Gene symbol	Primers 5 –3	Product size	PCR conditions
NM_024527	Plate22-H19-M13R.ab1	<i>ABHD8</i>	F: CGCTTACTGGTGGAGAACCT R: GTCTGCCAGCTCCACCTC	105	55, 2.0
NM_005858 <sup>a</sup>	ENSCAFT00000025526	<i>AKAP8</i>	F: ACCAGCGTTTGGACATGATG R: ATAGTCGTAGCTGTAGCTGG	710	58, 2.0
NM_032493	Plate32-D10-M13R.ab1	<i>AP1M1</i>	F: ATCACTCAGGAAGGCCACAA R: CCTCGTTCTTCCGGTACTTG	109	60, 1.5
NM_020410	Plate9-K09-M13.rgy.ab1	<i>ATP13A1</i>	F: AAAGTCACTGGCCCTGGAG R: CCACACATGAGGGTCACGTA	266	60, 1.5
NM_014299	CT02042A2E08.f1.ab1	<i>BRD4</i>	F: GAGATGCGTTTTGCCAAGAT R: CGCTCCTCCTCAGAGTCATC	170	58, 1.5
NM_031966 <sup>b</sup>		<i>CCNB1</i>	F: CAAAATACCTACTGGGTCCG R: AATTTCTGGAGGGTACATTTCT	704	58, 1.5
NM_001799	LeukoS5_2_C03.g1_A027	<i>CDK7</i>	F: CAACTTGTTGCTAGATGAAAATGG R: GGTCCACAACCTGATGTGTATAAGC	103	60, 1.5
NM_006387	ENSCAFT00000024839	<i>CHERP</i>	F: GGAGCTTCGAAATGTCATCG R: CGCCAGCTTGCACTTGTAGT	154	60, 1.5
NM_153221	CT020018A20B09.ab1	<i>CILP2</i>	F: CTCCTCCGATGGCTTCTCTA R: CATCTCCCTGCGGATATCAT	151	60, 1.5
NM_000095	ENSCAFT00000023228	<i>COMP</i>	F: GGACAAGGTGGTGGACAAGA R: TTCATGGTCTGCACGATCTC	353	TD 60, 2.0
NM_007263	MONO1_16_E08.g1_A005	<i>COPE</i>	F: TCAACCTCATTGTCCTGTCG R: CTTCACTGGGACAGGTAGC	507	62, 1.5
NM_004831	CT020013B10B07.ab1	<i>CRSP7</i>	F: CCGGCAAAGTGAGTTCAGA R: GTGCTTCGGTTGCTGTGTTA	167	60, 1.5
NM_006532	ENST00000262809	<i>ELL</i>	F: CTGATTTCATCGACCCCTA R: CCCAGGTCATTGCTGACAT	232	60, 1.5
NM_014077	SM0056-2_A06_02.ab1	<i>FAM32A</i>	F: AGGACAAGGACAAGGCGAAG R: CCGTTTCTCCTGCATCTTCT	128	60, 1.5
NM_012181	ENST00000222308	<i>FKBP8</i>	F: CACGGAGACCGCCTTGTA R: AGCGATGACCACAGAGAGTG	562	60, 1.5
NM_173483	OTTHUMT00000151074	<i>FLJ39501</i>	F: GCATCGGACAGAGCTTCG R: GCTCCACCTTGAGCCAGA	153	TD 60, 2.0
NM_016573	ENSCAFG00000014170	<i>GMIP</i>	F: TACGACGCCTTCATCTCTCT R: GTTGTTGGCAGACATCTTGTT	570	60, 1.5
NM_015965	CT020003A10_PLATE_H08_64_075.ab1	<i>GRIM19</i>	F: GGAGAACCTGGAGGAGGAAG R: CCGTAGGTGGCATTGAGAAT	389	60, 1.5
NM_032620	LeukoS1_6_B12.g1_A023	<i>GTPBP3</i>	F: CGTACAGCTGCAACTTCCTG R: ACTTCAGCCAGCTCCTTCCT	223	60, 1.5
NM_005543 <sup>a</sup>	ENSCAFG00000015159	<i>INSL3</i>	F: CTTCCAGAGGGAGATCCAGA R: CTGGGCAGGTACTCCATCA	562	58, 1.5
NM_000215 <sup>a</sup>		<i>JAK3</i>	F: CTGCGGTTGGTCATGGAGTA R: GAAGTCGGCGATCTTGACGT	486	58, 1.5
NM_005354 <sup>a</sup>		<i>JUND</i>	F: ATCGACATGGACACTCAGGAG R: GCTGAGGACCTTCTGCTTGA	210	58, 1.5
NM_002248	ENSCAFT00000023962	<i>KCNN1</i>	F: AGCAGGAAGTGACCAGCAAC R: ATGCCAGTGAGCAGACACAC	127	60, 1.5
XM_048457	CT020016B20F06.ab1	<i>KIAA0892</i>	F: TTTCTTTGCTTCTAGGGCATTTTAC R: AGGGTGATCACTAAAAGCACTT	100	55, 2.0
NM_004831 <sup>a</sup>		<i>KLF2</i>	F: AGAAGCCCTACCACTGCAAC R: CTACATGTGCCGCTTCATG	173	58, 1.5
NM_138442	CT020014A20D10.ab1	<i>LOC115098</i>	F: CAGGGATGCCCAAGAAGTT R: GCTCCTTCCTCATGACGTGT	156	62, 1.5
NM_012321	Plate17-F24-M13.rgy.ab1 653	<i>LSM4</i>	F: ACAAGTTCTGGCGGATGC R: CCTTCTGCTGCTTCTGCTG	150	58, 1.5
NM_018467	ENST00000263897	<i>MDS032</i>	F: GGACCAGAACCTGGAGAACTG R: GCAGACGATAATGAGCATG	103	60, 1.5
NM_025021	ENST00000321949	<i>MECT1</i>	F: ATGGAGAACGCCATCAGC R: AGGATGATGTTGGGGATGC	158	60, 1.5

Accession number	Ensembl/Horse EST ID	Gene symbol	Primers 5 –3	Product size	PCR conditions
NM_005919	ENST00000162023	<i>MEF2B</i>	F: CTGAGAGCGTCTACGTCCTG R: CTGCAGGCGTACTCCACAGT	1120	60, 1.5
NM_024104	CT04003X1G10.f1.ab1	<i>MGC2747</i>	F: CTGGAAAACCGGTGACCTT R: GGAACCCCTCCTGAAACTCCT	170	60, 1.5
NM_004145 <sup>a</sup>		<i>MYO9B</i>	F: CTGTTCTCCTGCAGAGCTGGTT R: CAGGCGGATGATGCTCAGT	213	60, 1.5
NM_000435	ENSCAFT00000025565	<i>NOTCH3</i>	F: GTGGGCTCCTTTTCGTGCT R: CAGTGGAAGCCTCCATAACC	161	58, 1.5
NM_017660	Plate19-A20-M13.rgy.ab1	<i>p66alpha</i>	F: CACACGTTTCAGCCAGTCG R: CAGTTGGAGGTGGCGTTG	122	62, 1.5
NM_024050	CT02041A1F05.f1.ab1	<i>PCIA1</i>	F: CGCCAAGAAGAGAGACCAG R: CGAGGAGCAGACAAGACAGG	150	60, 1.5
NM_012088	Plate17-K03-M13.rgy.ab1 416	<i>PGLS</i>	F: GGGCCTCATCTCTGTCTTCTC R: CCACCAGTTGGGCTAGGG	62	58, 1.5
NM_005027 <sup>a</sup>		<i>PIK3R2</i>	F: AGGGAGAGTACACGCTGAC R: TTGGACACTGGGTAGAGGAG	656	58, 1.5
NM_000980	Plate26-A08-M13R.ab1	<i>RPL18A</i>	F: ACTGCGGGTGAAGAACTTTG R: CTGCGATCTCCTCCACTTTC	879	60, 1.5
NM_014884 <sup>a</sup>		<i>SFRS14</i>	F: CCCAACTTTTCCAGACTCTC R: ACTCTGGGTGTTTTCAAAGC	151	58, 1.5
U90593 <sup>c</sup>	(microsatellite)	<i>SG14</i>	F: CCCCACTGGTTCCATTTAGATGT R: GGGGAGAGCATTTTGGTGA	188	58, 3.0
U90594 <sup>c</sup>	(microsatellite)	<i>SG16</i>	F: AATTCTCAAATGGTTCAGTGA R: CTCCCTCCCTTCCTTCTA	190	58, 2.0
NM_032627	CT020008A20D09.ab1	<i>SSBP4</i>	F: ACCAACTCCAGCGAGAACAT R: GATCCGTTTCACGTGGTGAG	231	60, 1.5
AB048331 <sup>d</sup>	(microsatellite)	<i>TKY021</i>	F: AGGTGAACCCAGAGAGTCC R: AGTGAGGCCTCGGTTGGGAG	117-132	58, 2.0
AB103896 <sup>e</sup>	(microsatellite)	<i>TKY678</i>	F: TAAAAGAAGGGGGTAATGGG R: TGTGGTGCTTGTTCCAGCA	207	58, 1.5
NM_024074	SM0051-2_E05_09.ab1 576	<i>TMEM38A</i> ( <i>MGC3169</i> )	F: CTCTCACAGCTCCCCTTTTG R: AGCTCCTCCTTGGACTIONTGGT	162	58, 1.5
NM_003290	ENSP00000300933	<i>TPM4</i>	F: TGA AAAAGGAGGACAAATATGAAGA R: CCAGTTTTTGCAACCGTTCTC	189	TD 60, 2.0
AY464530 <sup>f</sup>	(microsatellite)	<i>UMNe564</i>	F: GAATACAGGGGCTTTTCTGTC R: TTCTGCATCTTGATTGCAGTG	223	58, 1.5

<sup>a</sup> Brinkmeyer-Langford et al., 2005.

<sup>b</sup> Goh et al., 2007.

<sup>c</sup> Godard et al., 1997.

<sup>d</sup> Kakoi et al., 1999; Swinburne et al., 2000.

<sup>e</sup> Tozaki et al. in preparation.

<sup>f</sup> Wagner et al., 2004b.