SNP name	Group	rs	ss	Forward A/B alleles	Top A/B alleles	Chromosome	Position	Assembly	Illumina Probe ID	Genomic flanking sequence
ARS-USMARC-PARENT-AY761135-RS29003723	Verification	rs29003723	ss38341018	A/T	A/T	1	127426647	UMD3.1	ARS-USMARC-Parent-AY761135-rs29003723-0_B_R_1511686386	TTCTTTATTACGCTCCTCTGAAGAAGGAAAAACGATTTCTCTTATTCATGAGAAGGTAAG[A/T]GTCTTGGGTCCCCTGAACCTCCTAGCTCCACTGCAATGATTCTCAAACTTTAATTGCAAG
ARS-USMARC-PARENT-AY776154-NO-RS	Verification	rs41257512	ss117966901	A/G	A/G	2	26997623	UMD3.1	ARS-USMARC-Parent-AY776154-no-rs-0_T_F_1544362783	TAAGTACATAAGTACATATCTACTGGCCTTTGATCTGACTAGTTCCCCAGTCTCAGGTCT[A/G]TTTGCTGTTAATCACCAGTGAGAGAAGGTCCTACCCTATCTTAAGTGGTTCTCATRTCTC
ARS-USMARC-PARENT-AY842472-RS29001941	Verification	rs29001941	ss38339339	C/G	C/G	3	40399136	UMD3.1	ARS-USMARC-Parent-AY842472-rs29001941-0_T_F_1511686337	TCTATTAATTACTAATTGTATATCTTGCTGCTCAGATGTCTAGAGCACCTGTTTCCATAT[C/G]TGTAAAACYGAGTTGGGAGCTGAGACTGTGACTGAGGAGGGAAGGCAGRAGACTATTGCT
ARS-USMARC-PARENT-AY842473-RS29001956	Verification	rs29001956	ss38339354	A/G	A/G	3	49703647	UMD3.1	ARS-USMARC-Parent-AY842473-rs29001956-0_B_R_1511686054	CACTGAGTTTCAGAGAGGGCCAGAACTCTTCTGTCCACAAGGTCTGGCTCCATCCTGGTG[A/G]GGTGGGCAGAGAACCATGAGTTCTTGAGTAGCTCCAAGACCTATGGCATCAAGTGGCATG
ARS-USMARC-PARENT-AY842474-RS29003226	Verification	rs29003226	ss38340448	G/C	C/G	3	51976646	UMD3.1	ARS-USMARC-Parent-AY842474-rs29003226-0_T_R_1511685807	TGCATTTCACCTGCTGCAGCTTCACCACTGCACATGGATATTGTCTCTCCCTCCTCTAAA[C/G]TTCTCARTCATGGTCCAATTGTACCTTGACCTAAATTGAAGAGCAAAGACTATCTTGTTT
ARS-USMARC-PARENT-AY842475-RS29002127	Verification	rs29002127	ss38339556	A/G	A/G	4	20181749	UMD3.1	ARS-USMARC-Parent-AY842475-rs29002127-0_T_F_1511685857	AAGGTATTATGAGTTGTGTGGGTTTTTAAAAGCTTGCATCTCTAAGCTGTATGTGTGAGC[A/G]TGTGWGTTAGATTTAATAACATCTCTGATAAAGCTCAGATTAGGTAAGAGGATGTATCAG
ARS-USMARC-PARENT-AY844963-RS17871338	Verification	rs17871338	ss28451679	A/G	A/G	5	98102349	UMD3.1	ARS-USMARC-Parent-AY844963-rs17871338-0_T_F_1511685889	ACAGACTCTTTGTATGTTTTAAATCTTGTTTTTCCTTCTGTAGATGTTAACTGGTAACCA[A/G]TGTACAAAAGGGTTGGATCTCACCTTCAGGATATCTGAAATTTACAGTTTATTGTCCGTT
ARS-USMARC-PARENT-AY849381-RS29003287	Verification	rs29003287	ss38340521	A/G	A/G	6	23562312	UMD3.1	ARS-USMARC-Parent-AY849381-rs29003287-0_T_F_1544362791	TGGGAAACCCTATGAGCCAGAGTTTACGTCTGATGATTTGCTGGCACAAGGTGAGCTGTG[A/G]GAGAACCAGGTGCCCTGAGCCAGTGTCACCTCCATCCTGACCCTGAAAGGGGCTGAGGGA
ARS-USMARC-PARENT-AY850194-NO-RS	Verification	rs41255750	ss117969490	T/C	A/G	8	59996431	UMD3.1	ARS-USMARC-Parent-AY850194-no-rs-0_B_F_1511686156	GACAAACCAACCACCAAACAGAAARGCCAAGTGAGGTGATACTTACTGGTTCAGAACGAG[A/G]GTGTAGGAATTCTTATCTTCCTCTATGATTGACACAATGAGTGTGATGAGTTTGGGCCAG
ARS-USMARC-PARENT-AY851162-NO-RS	Verification	rs41255717	ss117970419	A/G	A/G	11	46411100	UMD3.1	ARS-USMARC-Parent-AY851162-no-rs-0_B_R_1544362778	GAAACCCTCTCTCCCTAAAGAAAGCCATACCCAGGGAGTCCACKTGGGCTGAATAACCCC[A/G]AGGACTGGCAGAAGGGAAGGGAAGAATGTAGCTGCAGCCTGAACTTCACTGTTGTCTKAT
ARS-USMARC-PARENT-AY851163-RS17871661	Verification	rs17871661	ss28452002	T/C	A/G	11	103047474	UMD3.1	ARS-USMARC-Parent-AY851163-rs17871661-0_T_R_1511686095	CATTCAACCAGCATTTACTGAGCTCCTCCTGATTCCAGACTTGGAAGAGCGGCTACTTCC[A/G]GATGGGATGTTCCTGCCTCCCCCTCTCACGGGGCAGGGAGGCCAGCGGGTGCGGCCTCGG
ARS-USMARC-PARENT-AY853302-NO-RS	Verification	rs41257524	ss117970873	A/G	A/G	13	47397987	UMD3.1	ARS-USMARC-Parent-AY853302-no-rs-v2-1_T_F_1924250844	CTTTCTATGTGGCTTCCTGTATTCCCTTTGTTGTCTAATGTCAGAAACTATAACTATCTA[A/G]TTCACACTAGGTTCTCTATAAATTATTTGCTGAACAAAATATTTCTTCTTTTGAAAATAA

SNP name	Group	rs	ss	Forward A/B alleles	Top A/B alleles	Chromosome	Position	Assembly	Illumina Probe ID	Genomic flanking sequence
ARS-USMARC-PARENT-AY853303-NO-RS	Verification	rs41257490	ss117970875	T/C	A/G	13	75383374	UMD3.1	ARS-USMARC-Parent-AY853303-no-rs-0_B_F_1511686244	TGACTGTGAAATKGGTATGATTGCCCCTTTTGTACAGATGGAGAAACTGAGGCTCAGAAA[A/G]GCTAAGGGATTGCCCACAGGTCCACAGTTCCCCAGGCTTCCCAATCCACTCTCCACTCCC
ARS-USMARC-PARENT-AY856094-RS17871190	Verification	rs17871190	ss28451531	A/G	A/G	29	9160939	UMD3.1	ARS-USMARC-Parent-AY856094-rs17871190-0_B_R_1544362770	AGCTAATTCTCTTGACTTGCAGGCGGAGACTGAGGCTCAACAAGGGGGCTTCAGCAACCC[A/G]TGGAGATGCAGCTCTTTCCCCTCACATCCAATTCAGTGCTTTTATTGAGTTATTGACTTT
ARS-USMARC-PARENT-AY858890-RS29002256	Verification	rs29002256	ss38339696	C/G	C/G	17	29936157	UMD3.1	ARS-USMARC-Parent-AY858890-rs29002256-0_B_R_1511686322	TATATTCCCAATTAACATACTCTAGAATGGTTGTAAAGTTTACCCTTTTACTAATAGCAT[C/G]TGCTTTTCTACGTCCTTACCAACACTGGTTATTATAAATCTTTTCTTTGATAGATTGAGA
ARS-USMARC-PARENT-AY860426-NO-RS	Verification	rs41255724	ss117972311	T/G	A/C	17	56512519	UMD3.1	ARS-USMARC-Parent-AY860426-no-rs-0_T_R_1511686089	GTGCCACTGAAATAGGCAATGTTGGCAAAACAATGTCTGTTACAATAAAATACATTAGAC[A/C]TTTAAATAAATAACCTTAAAAACTATGTGAGGGGACATGAACCCAGTCGATTGAATCTGG
ARS-USMARC-PARENT-AY863214-RS17871744	Verification	rs17871744	ss28452085	T/C	A/G	18	46647177	UMD3.1	ARS-USMARC-Parent-AY863214-rs17871744-0_T_R_1511686253	AGAAATTGAGGTCCCAGTCTCCTCCTTCAGCAAGACTCAGGCCCTTCCTCTCTTGGGACC[A/G]AAGAATCGGCGTCCCCTGCCACTTCATCCTCTGGACCCAAGAACCCAGGCCCCCAGACCC
ARS-USMARC-PARENT-AY914316-RS17871403	Verification	rs17871403	ss28451744	T/G	A/C	18	48812014	UMD3.1	ARS-USMARC-Parent-AY914316-rs17871403-0_T_R_1511686395	GAAAGCCGCATCAAGCATGCTCTCCTTGTCTGGGAAGAGCCGGCTGAGGATGAAAGGAAT[A/C]GGAAATCAGGCAATCTGAGAAGAGCTCTCCTCTCCCTCCCATGGATGAAGAAGTGACYAA
ARS-USMARC-PARENT-AY916666-NO-RS	Verification	rs41257460	ss117972636	A/G	A/G	19	44799390	UMD3.1	ARS-USMARC-Parent-AY916666-no-rs-0_B_R_1511686100	CCTGAGTCCCTGCCCAGCCGGGACTGCCTGGATCTGAGAGGTGGGACAAGGAGGTGGCTT[A/G]GCCGCAGGTCACCGGCTCGCAAGTCTGAGTCTCTGGGAAAGGCAAGTGTCCCGTTGAMTK
ARS-USMARC-PARENT-AY919868-RS29002211	Verification	rs29002211	ss38339648	A/G	A/G	20	46066109	UMD3.1	ARS-USMARC-Parent-AY919868-rs29002211-0_B_R_1544362786	TGCAAGATCTGAAGGAATTGAAAATGTCTACCATTTATATGAAAAGTATTGTTTAAACTG[A/G]AAGGATACATTTTTTAACCTGAAAAGCTTTCAGACAGTTAATCGCTAATTGTAGAAGTTC
ARS-USMARC-PARENT-AY929334-NO-RS	Verification	rs41255852	ss117973373	T/C	A/G	23	7219975	UMD3.1	ARS-USMARC-Parent-AY929334-no-rs-0_T_R_1511686227	GAAGAGGCTGTTGAAGGAATCTGAGGAGATCTAGAACCTCCTGGGAAAGAAAAGGGTTGA[A/G]TACAAGTCTCAGATTTTGAGAGTGGGGCCAGGGAGCCAACAGAGGCCTGAGGGGTGGGGC
ARS-USMARC-PARENT-AY937242-RS17872223	Verification	rs17872223	ss28452564	A/G	A/G	23	27306795	UMD3.1	ARS-USMARC-Parent-AY937242-rs17872223-1_B_R_2022483098	TTCTAGGTTCTGTGAATACAGTTRTGAACAAAACAGAGCAAAAATCCTTGCCTTCATGGG[A/G]TAGGGAATGGGGAGACAGACAATATACATAATAAATAACTAAATGTATTTTTTGTGTTAA
ARS-USMARC-PARENT-AY939849-RS17870274	Verification	rs17870274	ss28450615	A/G	A/G	24	56415794	UMD3.1	ARS-USMARC-Parent-AY939849-rs17870274-0_T_F_1511686403	TTTTATGTCTAGCCCTCACTCCCAGTGTAAACCTGTTGTGTTTCCCTGTATTTTCCTGCA[A/G]TGTTGTCACAGAGGAAGTGGGGTAGTGTAGTTCTGCCTTGATCACGCTKTCTCTRTCTTA
ARS-USMARC-PARENT-AY941204-RS17872131	Verification	rs17872131	ss28452472	T/C	A/G	25	14683151	UMD3.1	ARS-USMARC-Parent-AY941204-rs17872131-0_B_F_1511686056	CTCAACGTCCTCAAAGGATCACAAACAATGCCCTTTATGGGCRGCCTTCCTGACCCTGAA[A/G]TATACTACGTGAAACTGCTCTTAGCTTGGCATGAGAAAACTTCTGAAATACATACAAGTG

SNP name	Group	rs	ss	Forward A/B alleles	Top A/B alleles	Chromosome	Position	Assembly	Illumina Probe ID	Genomic flanking sequence
ARS-USMARC-PARENT-AY943841-RS17871566	Verification	rs17871566	ss28451907	A/G	A/G	1	138583183	UMD3.1	ARS-USMARC-Parent-AY943841-rs17871566-0_B_R_1544362784	TCAGATGATCAGGACAGCCAAGGAAACTCTAGAGGGCCTAAACTCCAAATCTTCTGTCCC[A/G]AGTCAAGTGTCTTTGTGAGAAGCAGGCCACAAGGAACAATATGTTTCATTCTAGAGTCTT
ARS-USMARC-PARENT-DQ381152-RS29002408	Verification	rs29002408	ss38339879	T/A	A/T	17	17616950	UMD3.1	ARS-USMARC-Parent-DQ381152-rs29002408-0_T_R_1511686131	CATCATATCTGAGGAAAGGGGCAGGTTTAAAGAATTTTAAAGCATTCAGTCTATGTGAAA[A/T]GAAAACCAAAGAATATATGCGTGTGTATGTATATACATAAATATACATGTGTGCTTTGAG
ARS-USMARC-PARENT-DQ381153-RS29012842	Verification	rs29012842	ss38323940	T/G	A/C	1	3249057	UMD3.1	ARS-USMARC-Parent-DQ381153-rs29012842-0_B_F_1511686340	AAATGTAAAGTAGCGYYTGTCCTTTGTCTGTCAGAATGGATGGGACCTGGCCAGGCATTA[A/C]TATTACGTAGAGAGATGCCCTTGGGAGCTTGGAGAGGCGGTGCAGCAATGAACACTCAGA
ARS-USMARC-PARENT-DQ404149-NO-RS	Verification	rs42939801	ss117966457	T/C	A/G	1	99314925	UMD3.1	ARS-USMARC-Parent-DQ404149-no-rs-0_B_F_1511686220	TGTCCTGGGAGGGCCAGAGATGGGGCATAGAACTCCTTGAAAATGGGATGGAGTAATCTC[A/G]AAGAAATGCTGAAATTCTGAGAGAAGCAAAAGCTTTATCTTATGAGCCCCTTTAAGAATC
ARS-USMARC-PARENT-DQ404150-RS29012530	Verification	rs29012530	ss38323621	T/G	A/C	1	59409838	UMD3.1	ARS-USMARC-Parent-DQ404150-rs29012530-0_B_F_1511686232	GAGCTCTTCTAAAACAAGTAAAGCCACTTTCACTCAAAGGCATAGGAGACAATTAGGAAG[A/C]ATTTTTTTCTTGCATTTATCTTTTTGAAAAACAATTGTTGATTGGTTTAGAACTTTAAGC
ARS-USMARC-PARENT-DQ404151-RS29019282	Verification	rs29019282	ss38327170	T/C	A/G	1	151349514	UMD3.1	ARS-USMARC-Parent-DQ404151-rs29019282-0_B_F_1511686396	AAGAACCGTCACACATAAAGGACCCGGAGGAACAATCGCCCAACATTGTAGGGGGYGGGG[A/G]GTGCGTATCATGGGAGCAGTAATTCAGCAGTATCATGGAGAAAAGGAAAGATGAGAGAAA
ARS-USMARC-PARENT-DQ404152-RS29022245	Verification	rs29022245	ss38330740	A/G	A/G	2	5306838	UMD3.1	ARS-USMARC-Parent-DQ404152-rs29022245-0_B_R_1511686398	TTTGAAAGCMAAGAGCAGCTGGTTTCCTATACCTGTGCCATYGGGCCCYTCCTTCCCCTC[A/G]CCCCCTCTCCTAGGGTCATAGGGCACATCCTGGGCTGTCTGCATATCTTCTCCCCTACAT
ARS-USMARC-PARENT-DQ404153-NO-RS	Verification	rs110843280	ss117974529	T/C	A/G	29	44756502	UMD3.1	ARS-USMARC-Parent-DQ404153-no-rs-0_B_F_1544362792	AGAAGACCTGCAAACAAGGAGCCCCATTAAGAGGACCATGTGGCCAAGCAGTCAGGGCTC[A/G]GTGAGCCAGACAGGAGAGAACTGCAGGAAAACTGGCCAAACACTACCTCCCTATACCCA
ARS-USMARC-PARENT-DQ435443-RS29010802	Verification	rs29010802	ss38325087	A/C	A/C	3	58040470	UMD3.1	ARS-USMARC-Parent-DQ435443-rs29010802-0_B_R_1511686400	TTTTAAAAGTGCTATCATGTGCCTTGAAGGTTGTAGCAGAAGGCGAAATAATTCATAATT[A/C]TTTTAGCTAGGTTGGTGACCACTAGATAGTAGGCTGCTTTAAAGTCTGTGTTTTATTTAC
ARS-USMARC-PARENT-DQ451555-RS29010795	Verification	rs29010795	ss38325080	A/G	A/G	1	29524658	UMD3.1	ARS-USMARC-Parent-DQ451555-rs29010795-0_B_R_1511686404	TTTTATTATGCTTCATATTTGAATGATAAGAYACCTGTAATTTTAATTTCAGGACTATTT[A/G]TTGGATACCAAGACTAAATTCTTCCATTGAGTGTTTCTCAATTATGAAGGCACAGACTAA
ARS-USMARC-PARENT-DQ468384-RS29003967	Verification	rs17871378	ss28451719	T/G	A/C	5	113137320	UMD3.1	ARS-USMARC-Parent-DQ468384-rs29003967-0_T_R_1511686215	TCCTTCCCTCTCAGGGGTTACCTGGAGAATTCAGGGGCCCTTCTAGCTAGAACAAAGGCT[A/C]ACRGAAGGAGGTACAGGTGGGGCCAGGTGTAGGAGGGCAACCCTCCCCTCCCCTCCCCTC
ARS-USMARC-PARENT-DQ470475-NO-RS	Verification	rs43710106	ss117967919	T/A	A/T	5	7651053	UMD3.1	ARS-USMARC-Parent-DQ470475-no-rs-0_B_F_1511686348	AGAGTGAACACAGGAATGAAAGCAAGCCAGTTGCTTTTCCTGAGACTCTCTCCCCTGTCT[A/T]CTTCATGCTTCCCGCTTATGTTTCCACAGAGAAATGGAAGCATTACTATGAATGCTATCA

SNP name	Group	rs	ss	Forward A/B alleles	Top A/B alleles	Chromosome	Position	Assembly	Illumina Probe ID	Genomic flanking sequence
ARS-USMARC-PARENT-DQ489377-RS29026932	Verification	rs29026932	ss38329318	T/C	A/G	3	98188384	UMD3.1	ARS-USMARC-Parent-DQ489377-rs29026932-v2-1_B_F_1924250892	GCTGGGTGGCYGACCTCACTGCCCTGTGCCGACCTCACGTGGCCRTGATGACCTGCATCA[A/G]ACAAACCACAACTAAAGGTTCAATATTGCTATTTCTCCTGCTGTACAGAGCCAGGCACRC
ARS-USMARC-PARENT-DQ500958-NO-RS	Verification	rs43708500	ss117967922	A/G	A/G	5	27825118	UMD3.1	ARS-USMARC-Parent-DQ500958-no-rs-0_T_F_1511686177	CYGCAGCAAGGTGAGTGGTCCAGCACTCCCTTCCCAGAACAGGGATGCTAAAATCTGAAA[A/G]CATTAGCAGAGTGGGGAGGGATGCTGAAAAAGCATTGACCTTTGTCTGGGTGGGCAAGGG
ARS-USMARC-PARENT-DQ647186-RS29014143	Verification	rs29014143	ss38323045	A/G	A/G	4	17200594	UMD3.1	ARS-USMARC-Parent-DQ647186-rs29014143-0_T_F_1511686097	CCTCCTATACTTACCCATGTATGTGTAGCTGGCTAGGGATCTGACTGCTTCCTCACAGCT[A/G]TGTCTTTTCTCATAAACTTTCCCTTCTCCCTGTCTTCCTCAGTGTCCTAYRGAGAACTGC
ARS-USMARC-PARENT-DQ647187-RS29010510	Verification	rs29010510	ss38325021	A/G	A/G	3	21146877	UMD3.1	ARS-USMARC-Parent-DQ647187-rs29010510-0_T_F_1511686203	GACTTTTCACATGTGAGGCAAACGTGATAACCACTACACCACGGAAAGGCGACAGTCGCT[A/G]CCACTGAGCCCTGTATCCAGGAAAACCCAAGGTTCAGCCGCCACTATCCAAGCCACCAAC
ARS-USMARC-PARENT-DQ647189-RS29012226	Verification	rs29012226	ss38323313	T/C	A/G	5	63273386	UMD3.1	ARS-USMARC-Parent-DQ647189-rs29012226-0_B_F_1511686076	TGTAACCGAGCAGGACTCACTGCTGATGTAACCGAGTGAGGCCTTTTCAGGACAGACCCC[A/G]CTCCCACATGCTCTCAGAAGTACCCAGATAATAGTAGCTCATGCCTGAGTTTTTCAGATG
ARS-USMARC-PARENT-DQ647190-RS29013632	Verification	rs29013632	ss38322528	A/G	A/G	6	13897068	UMD3.1	ARS-USMARC-Parent-DQ647190-rs29013632-0_B_R_1511686282	GTGATTCTGTTCAGTGATTCTGCAATTGGTCCAGGGACACCAGTCTATGGGCTCCATGTC[A/G]TTGGAACATCACTAACCCTTTCGTACTTGGGTCCTTCATATGTTCCTAACTGTTTATAGC
ARS-USMARC-PARENT-DQ650635-RS29012174	Verification	rs29012174	ss38323259	T/C	A/G	7	55116289	UMD3.1	ARS-USMARC-Parent-DQ650635-rs29012174-0_B_F_1511686366	CCTCTTCTCCCCGCTTGTAACAGTTCYCATACTGACAACTTGAGCTTCCCCACTCAACTG[A/G]GTGTTTCTGAACCCTGAAATTCTTTGTGTAATTAGCCTCTGATTGCTAAAGATTATCCCA
ARS-USMARC-PARENT-DQ650636-RS29024525	Verification	rs29024525	ss38334625	T/C	A/G	8	28799249	UMD3.1	ARS-USMARC-Parent-DQ650636-rs29024525-0_B_F_1511686124	AAAGGAGGCAAAATAAATTAATKTCCTGCTATTAAAAATCAGGATAGCAGTCATSTATGT[A/G]GAAGACTTTGATAATTTTCCATTCCATGACCCAGGTGCTGGTTATAAGTCATACACATAG
ARS-USMARC-PARENT-DQ674265-RS29011266	Verification	rs29011266	ss38325554	T/C	A/G	8	106174871	UMD3.1	ARS-USMARC-Parent-DQ674265-rs29011266-0_T_R_1511686025	CATACATAGTTTATTCTGAATCTTTAAAGCTACTGAGCTGTTCACAAGTAGTCTAACTTC[A/G]GGCATGTGSCACCGTGCATGTTAAAGCTTTTGTCCGTGARGACATAGTTAYGGGAAGAAT
ARS-USMARC-PARENT-DQ786757-RS29019900	Verification	rs29019900	ss38327796	A/G	A/G	2	111155237	UMD3.1	ARS-USMARC-Parent-DQ786757-rs29019900-0_T_F_1511685817	AAACGAAATAAAAACTTGCTGCCAGGGAAGGTTCTGATGTTGTGTGATATTGCATAGGCA[A/G]TTATAAACAACTGTGTCTGATAGYAGTTATCCACTGATATGTGCCTCGTGCCCTACTTCC
ARS-USMARC-PARENT-DQ786758-RS29024430	Verification	rs29024430	ss38334530	T/G	A/C	7	18454636	UMD3.1	ARS-USMARC-Parent-DQ786758-rs29024430-0_T_R_1511686389	TATGCCTCCATGCTTTTTCAAACATGGCCAAGAGCACAGAATAAAAGACTAACTTCAAAC[A/C]ATAACATTAGAGGAGAAAAACTGCATTCCCAACTCAAGAAACCACTAGAGTTCATCTCAA
ARS-USMARC-PARENT-DQ786759-RS29026696	Verification	rs29026696	ss38329081	A/G	A/G	7	94259472	UMD3.1	ARS-USMARC-Parent-DQ786759-rs29026696-0_B_R_1511686192	GACACACATACYACTGCACAATCACATAAACCACACGCTCAGGAGTGAACCGTGCCAAAG[A/G]AGGAGGAAGACAGATTTAAGCAAGAATAACAAGAATAAATGAACATTGCATGTGGTATTG

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ARS-USMARC-PARENT-DQ786761-RS29012840	Verification	rs29012840	ss38323938	T/C	A/G	10	44103665	UMD3.1	ARS-USMARC-Parent-DQ786761-rs29012840-0_B_F_1511685832	ATTATTAGAAATACTAGACCCTTTTCAAGTTTCTTTTGTTTCTTARGTGCTTTTTATAAG[A/G]TTTAACTTCATATTCAGTAAGCTAAGGGAAAAAATACTATGGTATATGTATTCTTAATTT
ARS-USMARC-PARENT-DQ786762-RS29010772	Verification	rs29010772	ss38325057	T/G	A/C	10	81572252	UMD3.1	ARS-USMARC-Parent-DQ786762-rs29010772-0_T_R_1511685887	ACGACTCGGCATAGATGATTTGTATGTAATGAGTAAGCACTGGCTGAATGGGTGAATCTT[A/C]TGTTAGAAAAGCGCATCACCATGAAGCCCAGGTAACAGGTCACCTTGCACGTGCTTCTGT
ARS-USMARC-PARENT-DQ786763-RS29020472	Verification	rs29020472	ss38328160	A/T	A/T	12	11824653	UMD3.1	ARS-USMARC-Parent-DQ786763-rs29020472-0_B_R_1511686292	GTTATCAATTATTTGCAGATGCCACRGTCATAGAAGCTTCTGGCCCAGAGACTCAAATGT[A/T]GTTTGCTAAAACAGCTAAAATAATGTGGGGACTCAGGAAAAGACAAGTCTATCRTTTGAC
ARS-USMARC-PARENT-DQ786764-NO-RS	Verification	rs109943112	ss117970659	T/G	A/C	12	25668974	UMD3.1	ARS-USMARC-Parent-DQ786764-no-rs-0_T_R_1511686313	TACGTATTACCAAACTACTTTTCGGAAGAGTTCCATCAGGTTAATCTTGAACCGAGTCAT[A/C]TGAGATGACTGGTTTCCTCCTAAGCTTGCCAACCCTGCATATTATTATTATTTATTATTA
ARS-USMARC-PARENT-DQ786766-RS29012070	Verification	rs29012070	ss38323155	A/G	A/G	10	3530271	UMD3.1	ARS-USMARC-Parent-DQ786766-rs29012070-0_B_R_1511686058	CACTTTCTAGGTCCATCCATGTTGCTGCAAATTGCTCATCATGGATCCTGTGATCTATC[A/G]GTTCCATTCCTAGGTATATCCTATAGGCAAAGTCACAGGTGAAGGTGTTCTTGGCCAGTA
ARS-USMARC-PARENT-DQ789028-RS29017713	Verification	rs29017713	ss38334020	T/C	A/G	6	46936182	UMD3.1	ARS-USMARC-Parent-DQ789028-rs29017713-0_B_F_1511686254	AATTAACTCTCTCAAATCTGAGTGAAGTGRAAAGGCAGTGAAAATATTCCAGGAAGAGCC[A/G]AGCAGGTTGGTGAGTGATGACCAGATGTGTTGCTTTGAAAAGGCAAATCCACATGGCACC
ARS-USMARC-PARENT-DQ837643-RS29018818	Verification	rs29018818	ss38335912	A/G	A/G	11	66341589	UMD3.1	ARS-USMARC-Parent-DQ837643-rs29018818-0_T_F_1511685855	AAGGGATATTATGTTTTAATGCACTGCTGTATAATTCATCAGCCCTCACCCCTCCCAGTC[A/G]AAATTACTGATGGAAATAAGCAAACACCCCAAATTTGCTATTTCCCTTTCCCAATGCCAA
ARS-USMARC-PARENT-DQ837644-RS29010468	Verification	rs29010468	ss38324977	A/C	A/C	8	88974063	UMD3.1	ARS-USMARC-Parent-DQ837644-rs29010468-0_B_R_1511686264	GTACAAGATAGGCYGCCAAAGGCTKCCTCTCTTTCAGGCCAAAATCCTCAAGGCAATTRC[A/C]AAGCCTTGATATCTGCTAGAAATATGGAGCAGATACTTGAGGAAAATAGAATAGATATTT
ARS-USMARC-PARENT-DQ837645-RS29015870	Verification	rs29015870	ss38332364	T/C	A/G	11	24553007	UMD3.1	ARS-USMARC-Parent-DQ837645-rs29015870-0_B_F_1511685930	CCTGCTGGTCAGGACCCCCTCTTCCCAAATGCTAGGAGGTCCTCCGCTCATCTCCCCCRC[A/G]GCCGACTGCTGCCGAGCTGCCACCTGTTGTCTGTCCCCACACCCTTGCGCACTGCGTTCT
ARS-USMARC-PARENT-DQ839235-RS29012691	Verification	rs29012691	ss38323789	A/C	A/C	3	116448759	UMD3.1	ARS-USMARC-Parent-DQ839235-rs29012691-0_B_R_1511686108	CCTTGCCAAGGACTCGTTTCGTGTGGAGGCTTTGAAAGGCTGTCATTCACAACAAAACCK[A/C]GATCATTATCTAGTTTTTTAACTCTCATTTTCTTAGCACTTGAAAATGCTTTAAAGCCCT
ARS-USMARC-PARENT-DQ846688-RS29023691	Verification	rs29023691	ss38336986	T/C	A/G	5	119261609	UMD3.1	ARS-USMARC-Parent-DQ846688-rs29023691-0_T_R_1511686201	GTAACACTGGGTGCTGAGTGTGGAGCTGAGTGACTGAGCAGAAATCGGCATCCGGCCTCC[A/G]GTGACCTCGGATCCTGGTGTAGCCCCGCCCTAGGCAGGCTGCCTGGTATTCTTCGAGGTC
ARS-USMARC-PARENT-DQ846690-NO-RS	Verification	rs43710049	ss117971671	T/C	A/G	14	10171919	UMD3.1	ARS-USMARC-Parent-DQ846690-no-rs-0_B_F_1511686328	AGGCTCTGCCGTCACAGGGGTCAGTGTGACGGAGCTGCAGGCCAGCTGCAAGGTGGCATG[A/G]GGTATAGATCACAGTGGAACTAAGCTGTTTTTAAGTTCTAAACTAGACATTCTCCTCTGA

SNP name	Group	rs	ss	Forward A/B alleles	Top A/B alleles	Chromosome	Position	Assembly	Illumina Probe ID	Genomic flanking sequence
ARS-USMARC-PARENT-DQ846691-RS29019814	Verification	rs29019814	ss38327708	T/C	A/G	14	48380429	UMD3.1	ARS-USMARC-Parent-DQ846691-rs29019814-0_B_F_1511686062	AGGTAAAGAGGAAGAGAGAGAACCCCAYGAAACATGCGGATATAGWGATGTTTAAYTAAA[A/G]TGAACTCAGTTCACAAACTAGCATACAACCTTGAAATTCATCTCTTTTTTTAGATCTCTG
ARS-USMARC-PARENT-DQ846692-RS29010281	Verification	rs29010281	ss38324786	A/G	A/G	14	80082923	UMD3.1	ARS-USMARC-Parent-DQ846692-rs29010281-0_T_F_1511685981	AGTGCCTAAGGGTAATGAATGTCCCATAGTCAGCACTTTGTAAGCACCCACTAACTTGCA[A/G]CCAAAATGAACATTTATCTGTTGGAATTCATAGTTTATAGAATATTAGAGATACTTTTTA
ARS-USMARC-PARENT-DQ846693-RS29017621	Verification	rs29017621	ss38333927	A/G	A/G	16	9855276	UMD3.1	ARS-USMARC-Parent-DQ846693-rs29017621-0_T_F_1511685979	AGTCCAGTGAGTAAAAGACCAGGGTTTTCAGGCTTTATGTCTGTACAGCATTTGCCTATG[A/G]TTGCCTGTTTGCAGARCTGCCCAGAAGCCAAGAAGCTGGTCTATYAATTTGGGGGGAATT
ARS-USMARC-PARENT-DQ866817-NO-RS	Verification	rs43706884	ss117971908	A/G	A/G	15	38078775	UMD3.1	ARS-USMARC-Parent-DQ866817-no-rs-0_T_F_1511686325	TATTCAGATTGATGGTCCAGCATCTTTAACCCTGACTAAATAGGTTTGGGACAATCTACT[A/G]AAATTCCTGTGGTGGACATATTTCCTGAAAGCCTCTTTGAGATCACCACTCCTAGAGGCT
ARS-USMARC-PARENT-DQ866818-RS29011701	Verification	rs29011701	ss38325997	A/C	A/C	15	79187295	UMD3.1	ARS-USMARC-Parent-DQ866818-rs29011701-0_T_F_1511686199	GACATCTTTGCTTTCTGTGATTTCAGGTGTCAGCTCCTGAGCTTTAGAACATGGCTGCTA[A/C]AAGCAATGTGACTGAAATCATTTTCTTGGGATTCTCCCAGAACCAGGGTGCCCAGAAGGT
ARS-USMARC-PARENT-DQ888309-RS29013741	Verification	rs29013741	ss38322638	T/G	A/C	7	8272794	UMD3.1	ARS-USMARC-Parent-DQ888309-rs29013741-0_B_F_1511686294	CAGGGACGGTGTATTCAGTAAATAACTTCAATTTAATGAGATTTCAATGTGCCTTTATAA[A/C]TAACAACTATTTTTGAGTGATTTTTTTTAAAGGCATTTTCAAGTTTAAACTGCAGTGAAC
ARS-USMARC-PARENT-DQ888310-RS29012422	Verification	rs29012422	ss38323509	A/C	A/C	17	991486	UMD3.1	ARS-USMARC-Parent-DQ888310-rs29012422-0_T_F_1511686239	GGCAGGGACTTAGAATGGACTCCATAGCTGATACGGCCATTGGTTGGGAGCTAAATCAGA[A/C]AATGCTTCCAGCTGAGCTCTCTGGCCAGACAAGGTCACCAGTTTGGCTCTGCAGATAGCC
ARS-USMARC-PARENT-DQ888311-RS29017313	Verification	rs29017313	ss38333605	A/C	A/C	19	8505317	UMD3.1	ARS-USMARC-Parent-DQ888311-rs29017313-0_T_F_1544362775	CTGTGGCAGCAGCCCGATTCTAAACAGAGCAGCTTGTCTTTAGGATGGCCAGCTCTCCAG[A/C]GGAGCCCCCTGGCCTTCAGCAGTGGGGTGAGCACCGCCTCCTCTTAACCTCTCTTAGCTC
ARS-USMARC-PARENT-DQ888313-NO-RS	Verification	rs43708490	ss117972867	T/C	A/G	20	17837675	UMD3.1	ARS-USMARC-Parent-DQ888313-no-rs-0_B_F_1544362772	GGGAGAAAAAAAAYGGAACCCAACTTTTTAATCTGCTTCTGGAGCTCACCCACCATTTAC[A/G]TGGCATGGTGACTAAACCCGAACTCTGCCAGGAGCCAGTTTAACGATGCAGTTAAATGAG
ARS-USMARC-PARENT-DQ916057-RS29009979	Verification	rs29009979	ss38324475	T/A	A/T	7	81591587	UMD3.1	ARS-USMARC-Parent-DQ916057-rs29009979-0_B_F_1511685798	TTTGTTTTAGTTTGACAGAACATAGTTTTCTTCCACAGTCAACCCAACTGTGAGGAAMAT[A/T]TCAGAAATTAAACTAGACTAAGTTAAACTAAATTAATGGAATGCCTCTACTGAGTTTTTT
ARS-USMARC-PARENT-DQ916058-RS29016146	Verification	rs29016146	ss38332645	A/G	A/G	8	1554706	UMD3.1	ARS-USMARC-Parent-DQ916058-rs29016146-0_T_F_1511686287	GTGGATGCGCACAGTCCCAACCACTGGAGCACCAGGGCATTACCTATCACAGAATTTTAA[A/G]GGAAACGGACAGCCCGCGGCTTGAGAATCTATTAAGAGCGCCAAGTCTAACCACTGACGT
ARS-USMARC-PARENT-DQ916059-RS29009907	Verification	rs29009907	ss38324402	T/C	A/G	18	23426214	UMD3.1	ARS-USMARC-Parent-DQ916059-rs29009907-0_B_F_1511685808	AGGTGCCCCACATATGATTGTTAATGAATAGATGAAACAAAGCAAAACAAAGGCTCTAAC[A/G]GTGGACTGCTTTGTGGCCAGGAAAGCAACATGTATGTGGAGGAATGTCATATTGGTGTTT

SNP name	Group	rs	ss	Forward A/B alleles	Top A/B alleles	Chromosome	Position	Assembly	Illumina Probe ID	Genomic flanking sequence
ARS-USMARC-PARENT-DQ984825-RS29012457	Verification	rs29012457	ss38323545	T/C	A/G	10	98230479	UMD3.1	ARS-USMARC-Parent-DQ984825-rs29012457-0_T_R_1511686053	TATAATAACTCGGGTTCGGCAAGATTCAAGTGTTCTTCTCTGAATGGCTTTTAAAGGCTC[A/G]GTCTCTCTTAGTTCGAAATGGAGATGGGGAAGGAAGGAGTCGGTTGGGGACGTCTGAGTG
ARS-USMARC-PARENT-DQ984826-RS29027559	Verification	rs29027559	ss38329949	T/A	A/T	14	27751888	UMD3.1	ARS-USMARC-Parent-DQ984826-rs29027559-0_B_F_1511686362	GASCCTGATGACACCCAGTCACATTCAGAGCTKGTAGGTAGCCTTTTGGTTCACTTAGCA[A/T]TGGGGCTGGAGCAGTATTTCCAACCTTAGAATCTGCTGCTACTACAACCCACAGAGGCCA
ARS-USMARC-PARENT-DQ984827-RS29012019	Verification	rs29012019	ss38323104	T/C	A/G	10	55611885	UMD3.1	ARS-USMARC-Parent-DQ984827-rs29012019-0_T_R_1511686393	CCATTATTCCATAGGTACCCTGTATTCTTTCAAATGAGTATGTTCACTGCCTTTACTTAA[A/G]GTACTGATAAGTAGTGTTTTTGTAYRATTTCAGTGCCTGCATTTGTATTTTAGTATGCAA
ARS-USMARC-PARENT-DQ990832-RS29015065	Verification	rs29015065	ss38326759	A/G	A/G	22	11038205	UMD3.1	ARS-USMARC-Parent-DQ990832-rs29015065-0_B_R_1511686084	CCAAGAACCACTGTGATAGGAGTAGCCCAACACTGGGGATTGAGGAGAGCTCCAGATTCC[A/G]CTCTCTGGCCAGGAGCAAGTCTTGTTCCCTCTTTTCTTAAAAAAATTATTTATTTTTAAT
ARS-USMARC-PARENT-DQ990833-RS29010147	Verification	rs29010147	ss38324647	A/G	A/G	24	15447771	UMD3.1	ARS-USMARC-Parent-DQ990833-rs29010147-0_T_F_1511685823	AAAGGTGACCTCCTCTGGCAACCCTGTATAAGGCCACTATTCTTAATCACTCTCTTCTGG[A/G]TATCCAAGTTCACAGCCTTTAAATGACAAAAAGTATACAGGTTTTCCACAGCTATGTCAG
ARS-USMARC-PARENT-DQ990834-RS29013727	Verification	rs29013727	ss38322624	A/G	A/G	26	8221270	UMD3.1	ARS-USMARC-Parent-DQ990834-rs29013727-0_B_R_1511686280	GTGAGTGTGTTTCGAGACAGGGTTCATAAGAATGTAATTAAGTTTAAACGGGGTTGTGAA[A/G]GTGGGGCTCTGATGTGATAGAATTTGTTGCCTTGTGGAAAGAGATGCAAGAAAACTCTCT
ARS-USMARC-PARENT-DQ995976-NO-RS	Verification	rs43706859	ss117973059	T/C	A/G	21	3088886	UMD3.1	ARS-USMARC-Parent-DQ995976-no-rs-0_B_F_1511686372	GCAAAAGGGGCAATAAACTGTTGCTGGATTTAATTAAAAACAACAAATCATTTGGTCAGT[A/G]GTAATGGATGCTACAAACAACCCATCAGGTGCATGGCTATTTAAGGAGCCAATATTTTAA
ARS-USMARC-PARENT-DQ995977-RS29020834	Verification	rs29020834	ss38328525	T/C	A/G	24	1854953	UMD3.1	ARS-USMARC-Parent-DQ995977-rs29020834-0_T_R_1511686267	ATTCGTTTCATGAAAAGGTAGCCCAGGTGTGCCTGCCCTGAGGCCCAGTACCTTCCTCCC[A/G]ACCCCGTGGCACCAGAGTCTCAGCCCCTCGCCGTGACACCTGGCAGCCTCRCCCTTGTAC
ARS-USMARC-PARENT-EF026084-RS29025380	Verification	rs29025380	ss38331266	T/C	A/G	19	15345312	UMD3.1	ARS-USMARC-Parent-EF026084-rs29025380-0_T_R_1511686165	TCATCTTTTGTTTTCTTTGTCTAGCACCACTGCCAGTTCTAGCCTGTCAGGGCAAATTCA[A/G]TAATAATTAATAGCTGTTGATGAGCCAGTTGTTCTAGAATCCATTTTTTTTTTTAATAAG
ARS-USMARC-PARENT-EF026086-RS29013660	Verification	rs29013660	ss38322556	T/C	A/G	28	35331560	UMD3.1	ARS-USMARC-Parent-EF026086-rs29013660-0_B_F_1511686344	AACGACAAAGGARTTTGCAGATGTGATCAAGGCTACAAACCCTRASATGGGGAACATACT[A/G]TAGATTATCCAGGCGGGCCTATGAGTCCTTTCCTAGCTATGGTAAGGATGAAAAGAAAGA
ARS-USMARC-PARENT-EF026087-RS29011643	Verification	rs29011643	ss38325939	T/C	A/G	13	1982209	UMD3.1	ARS-USMARC-Parent-EF026087-rs29011643-0_T_R_1511686381	CTCTCCAAAGCAAACAAGTTAGTGCTGGCTTTGGGGACTGTGCATCCACGGGCTTCAACC[A/G]CAGYGRTCCAAAATTAAAGGTCTGTCAGAGCAGGTGGGTGGAAGGCAAAACCCAAAGGAA
ARS-USMARC-PARENT-EF028073-RS29014953	Verification	rs29014953	ss38326646	T/C	A/G	18	1839733	UMD3.1	ARS-USMARC-Parent-EF028073-rs29014953-0_T_R_1511686033	TTGATGCCCACAATACCAGGTCCTGCCTGTCAATAATCAAGTTGCCTCGCATTAATTAGT[A/G]TCTACCCTGCCYCTGTCAATGTCTTATCAGACAACCTTAAATACAATCCTTATCATCTTG

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ARS-USMARC-PARENT-EF034080-RS29024749	Verification	rs29024749	ss38334851	A/G	A/G	29	28647816	UMD3.1	ARS-USMARC-Parent-EF034080-rs29024749-0_T_F_1511685993	ATATCACACAACTCCTAGAAGCCAACACCACGGTCACATGATCCTGGTGGCCAATATGGC[A/G]GTGCTTCTACACTATAGAATGGAATACGTATTAATAGCTYTTACATTATTGGCTTCATTT
ARS-USMARC-PARENT-EF034081-RS29009668	Verification	rs29009668	ss38324161	A/T	A/T	13	25606469	UMD3.1	ARS-USMARC-Parent-EF034081-rs29009668-F2BT-1_T_F_1923529952	GCTAGGACTGAGGACTTCTCCTCCTTATGTAAGCATCAATCAGAAAATGCTGGGTTGACA[A/T]GCACTACTATCTATAAAATAGATGGCTGGTGGAAAGCTGCTGTATAGCACAGGGAGCTCA
ARS-USMARC-PARENT-EF034082-RS29013532	Verification	rs29013532	ss38322427	A/G	A/G	22	56526462	UMD3.1	ARS-USMARC-Parent-EF034082-rs29013532-0_T_F_1511686117	CGCAGCTATCATAGTATGTTCTTTTCCCTTATAAACAACTTTGTTGGTGGTATATTTTAC[A/G]KATCCTGAGATTTATTTATTGCAGGAATRTACTTCAGTGATTTTTAGTAAATTTACATAG
ARS-USMARC-PARENT-EF034083-RS29018286	Verification	rs29018286	ss38335376	T/G	A/C	25	3126438	UMD3.1	ARS-USMARC-Parent-EF034083-rs29018286-0_B_F_1511686194	CAGCCACACCCTGACAACTGCCAAGCTGGCCAGCACCTCCCATTCTATAGTCAATCTTCA[A/C]GCAAAATGTGCCAAGTTCTATGGGGAGAAAACAAGACTCCAAACCTCCGCCTGGTCTGTC
ARS-USMARC-PARENT-EF034084-RS29016185	Verification	rs29016185	ss38332685	C/G	C/G	27	21480570	UMD3.1	ARS-USMARC-Parent-EF034084-rs29016185-0_T_F_1511686171	CTTCTTCATGAGAAATCAGCCCACATATCATGCAATTCACACTCACATATATCAGTTGAA[C/G]GASTGTGAGAAATCAGAAATCATATWATTTACAGTGTTTAAATACATTACACAGCAGGTA
ARS-USMARC-PARENT-EF034085-RS29025677	Verification	rs29025677	ss38331569	A/G	A/G	28	5913226	UMD3.1	ARS-USMARC-Parent-EF034085-rs29025677-0_B_R_1511685872	AATCTTAGAAACAGCCTSCCAGGCAGATGGTTTTAACACACGGTGCAGAATGTAGACTCA[A/G]TAATGCCAGAATAGCCACGTGATTCATATAAAACCCAGCACTACAGTCTATATTATCTTT
ARS-USMARC-PARENT-EF034086-NO-RS	Verification	rs43708440	ss117974174	T/C	A/G	26	38233337	UMD3.1	ARS-USMARC-Parent-EF034086-no-rs-0_T_R_1511686083	AGATCTTCCCCAACAGTACTTATTACCACATAATAAAAACCCATCACAAGCTTCAGCTTC[A/G]TGGATACTCTGAGAGTAAATAAGAGATTATTTGCAAATTCAAATGTGCTGAACAGGTTGG
ARS-USMARC-PARENT-EF034087-NO-RS	Verification	rs110665639	ss117974397	T/C	A/G	28	16097749	UMD3.1	ARS-USMARC-Parent-EF034087-no-rs-0_B_F_1511686140	GGCCTCCTTACTAGGAGTCAGGGGAAACCTTTACATTYCCCAAGGCGGGTATTTTTAGAC[A/G]CAATGCTGTGTCCAGAGTGTTAACTAATTGAGTGATCAGGTTTCATACTTGGCCACAGAG
ARS-USMARC-PARENT-EF042090-NO-RS	Verification	rs43708441	ss117971911	A/G	A/G	15	21207529	UMD3.1	ARS-USMARC-Parent-EF042090-no-rs-0_T_F_1511686079	CATTTAAGAGATACTTGTCTTCTTGCTTTTGGCAGCATATAAAATCATCTTGAGAAAGAC[A/G]ATGGATGGGAAAGAAGACATCTTTTCATATTTGCAGCATATTTTAGATTYTAGAAACAGT
ARS-USMARC-PARENT-EF042091-RS29014974	Verification	rs29014974	ss38326667	A/G	A/G	28	44261945	UMD3.1	ARS-USMARC-Parent-EF042091-rs29014974-0_B_R_1511686334	TCCTYCTTTATCACAGCTTTTCTCCYATGATGAAGCAATAAGGCACTGATGAATTGTGGT[A/G]AAGGGCTGGGCTCCCAAAAGTTTGGAGGTGATGAGTTTACCTTTAAGCACCAAGGAACTA
ARS-USMARC-PARENT-EF093509-RS29015170	Verification	rs29015170	ss38326868	T/A	A/T	22	22573121	UMD3.1	ARS-USMARC-Parent-EF093509-rs29015170-0_B_F_1511686160	CRTGGTGTCCTTAGCAAATAAATGAATGAATAAATAGAAAACCACATGAGAGAAGATAAT[A/T]GATTTTAGTATTGTTTGTTTGTGAAAGAATGAATGTAATACCTTTTGGCCAATCACACAG
ARS-USMARC-PARENT-EF093511-RS29012316	Verification	rs29012316	ss38323403	T/G	A/C	21	26620013	UMD3.1	ARS-USMARC-Parent-EF093511-rs29012316-0_B_F_1511686206	AGAAGTAGACCACGCCCCTTTCCTTGGGGCTGGTTATAGGAAGAGCTGCATTCACCAGCA[A/C]CTGACGGAGGAGAGTTTCCTAACCAAATAAAGATGAGCACAAGGGACTTCCCTGRTRGTC

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ARS-USMARC-PARENT-EF093512-RS29013546	Verification	rs29013546	ss38322441	G/C	C/G	27	15141319	UMD3.1	ARS-USMARC-Parent-EF093512-rs29013546-0_B_F_1511686298	AAATTCCATGATCCTGGGACTGGGTTGTTTTTATTAACAACCTTGATCTTTTTACAACAA[C/G]CTTGATCTAATCTTTGCCAAAGTTGCAACATCCAGCTATAAGCAAAGAAACACAAGAAAC
ARS-USMARC-PARENT-EF141102-RS29015783	Verification	rs29015783	ss38332274	A/G	A/G	27	37513923	UMD3.1	ARS-USMARC-Parent-EF141102-rs29015783-0_B_R_1511686234	GGAATAGCTTGCAATTTATTTTTTTGTCCTTTTTCATTTTGTAAAATTTCCAGCTCAGAA[A/G]TCCCTCAGTGTTTTGATTATTCTCCTCTGGATATGTACCAGTTTGATAGTCTTTTTAAAA
ARS-USMARC-PARENT-EF150946-RS29023666	Verification	rs29023666	ss38336959	A/G	A/G	26	13229219	UMD3.1	ARS-USMARC-Parent-EF150946-rs29023666-0_B_R_1511686350	TGATGGCAGACCCCAGCCRTATGGCCACSCACACTTCTCTCTCTGCTTTCCCACCACCGC[A/G]TGGTTATTGCCACTTCCTGCCTTTTTTCTTGGTGCCCTTCTGGAACACCGTCTCTATTCC
ARS-USMARC-PARENT-EF164803-RS29011141	Verification	rs29011141	ss38325429	A/G	A/G	19	55174260	UMD3.1	ARS-USMARC-Parent-EF164803-rs29011141-0_T_F_1511686247	GGGCAGGGAGGGGGCCCTTGGACGCTTTCTCATGTTATTCCGTGGGGTTATCTCTGAGAC[A/G]GTGTGAATGAGAGCACGGTCACAGTGCCCTGACCCCGACCCTGGGCCACGGCCCTTCCTG
ARS-BFGL-BAC-19454	Verification	rs109516152	ss105246072	A/G	A/G	16	13695211	UMD3.1	ARS-BFGL-BAC-19454-0_B_R_1544342906	AAAAGATGGCACTTCAAAGTGAAAGACTCTCATTAAATTGAGACCTGAAATAAATTTTCC[A/G]CAGTGCCATGACTGGCCCAGATGAGCCATATGGAGTCAAAATCTCCCCCACCTGACATAT
ARS-BFGL-BAC-27364	Verification	rs110487850	ss105254853	A/C	A/C	1	8437530	UMD3.1	ARS-BFGL-BAC-27364-0_T_F_1511663145	AAAATCTTAGAATCTGACATTGATGCCTTTATGATCATCTAAAGGAAAATTCATGCCAGC[A/C]GTAAGATGCTTCTTCATTAGGAATTCAGAATATATTTTCCTTATGGAATTTTTTATTTCT
ARS-BFGL-BAC-35552	Verification	rs41256483	ss105263926	A/G	A/G	2	12823369	UMD3.1	ARS-BFGL-BAC-35552-0_T_F_1511664229	CAATATGAACATTACTGAACTTTGTATAGGTTTCTTTCTCCCCATCCCTGCAATCTCTAC[A/G]CTAATCAGTAGAGTCTCAGTATCTCATATCAAGAGTAGCTCTGTCTCCCATTCTCAGCTC
ARS-BFGL-NGS-10035	Verification	rs110008575	ss86293049	T/C	A/G	26	39952154	UMD3.1	ARS-BFGL-NGS-10035-0_T_R_1511669153	TGTTGGACGTTAGGAGACTCTTCTCATCGGCAGAAACATATTTGAGACCCTGGCCATCGT[A/G]AAGCACAGGGTGGTCCCCAGGGGGATTGTCCTGCCTGCCCTTGGGTCTGGATTCAGCTGG
ARS-BFGL-NGS-101456	Verification	rs43526009	ss86330195	T/C	A/G	7	82825197	UMD3.1	ARS-BFGL-NGS-101456-0_T_R_1511669761	GCTGTTTTGGTATGGATGGCTGCCACCTCTTAGTGTGGGCCAGCTGTTAATCCCCTTGAC[A/G]GGAGGTGTGACTGTGTTGTGGTGAGCAGACCCTGCCCTGGTTGTGGAGCGGGGCCTTCTC
ARS-BFGL-NGS-102169	Verification	rs110612889	ss86332885	A/C	A/C	27	12930436	UMD3.1	ARS-BFGL-NGS-102169-0_B_R_1511667660	AACCACACGGGCATTTTCCCACCTCCCTGGACCTCTCGGCAGCCTTTGGTGTGGCCGCCC[A/C]TTGCTACTTCTGGAAACACTGTTCCGCGTGCTCCCTAACGTCATAGTCCTTCCCTGCAGC
ARS-BFGL-NGS-106015	Verification	rs109496638	ss86287153	A/G	A/G	6	61199572	UMD3.1	ARS-BFGL-NGS-106015-0_T_F_1511678403	ATGCTCTAGGACTCAGTTAGTCCCACAATCTTACCTGTGCCTCCCTGCTCCTTGCCCCCA[A/G]CACGGGGGCAACACTGGCCCCTTTTAAGTCCTTCAGCATGCCCAGCTTCCTCCAGCCTTA
ARS-BFGL-NGS-111053	Verification	rs110813850	ss86339707	T/C	A/G	5	72264603	UMD3.1	ARS-BFGL-NGS-111053-0_B_F_1511637622	CTCTTTCCAAAACCCTCTGCTTTGGCCCAGAGTTAGCAAGTGGGCTAAGGAGAGGGCCTG[A/G]GGAACTTTATGATGCAAAGTTGTGACACCTTTCACTATGATTGGGAGATACTGACTTCTT

SNP name	Group	rs	ss	Forward A/B alleles	Top A/B alleles	Chromosome	Position	Assembly	Illumina Probe ID	Genomic flanking sequence
ARS-BFGL-NGS-111076	Verification	rs110551361	ss86336856	T/C	A/G	21	21220448	UMD3.1	ARS-BFGL-NGS-111076-0_B_F_1511637826	AGAAACAGCTCAAGAGAGATGGTTGCCTTCTGCCTTCTGAAGCCTGGTAGTGAAGGCCTT[A/G]TTATTTCAGGGACAGACGCCCCGGAGGTGCTCATAACGCTGGTGCAGCTTTTACAGAGGT
ARS-BFGL-NGS-111114	Verification	rs43645607	ss86341013	T/G	A/C	10	84446642	UMD3.1	ARS-BFGL-NGS-111114-0_B_F_1511638490	TCACCGGGGAACACACCCCACTCGAAGCCTCTTGAAAGCAAGCCAGAGCCAGCAGCCTCT[A/C]GTTGGCCTGCTCTGCGCTGTGCAGGTTGGGGAAATATCCTATAACCCCTCACTGTGAATG
ARS-BFGL-NGS-112094	Verification	rs109458348	ss86339335	T/C	A/G	13	69187742	UMD3.1	ARS-BFGL-NGS-112094-0_T_R_1511638821	CTTTCCTCTGTAGTAAAGTTTCTCAACTTCCATGCATTGGGGGCTGAGTAATGCTCTTAC[A/G]CACAGGGCCTGTCCTACTCATTGGAAGATGTTTAGCAATTCCTTGAGCTCCACTCAGAAG
ARS-BFGL-NGS-112325	Verification	rs110072997	ss86337040	T/C	A/G	12	79643103	UMD3.1	ARS-BFGL-NGS-112325-0_B_F_1511648300	GTGACAAGGTCACCAGCACCCAAGATGTCTGGTCCCTGCCCTGGGATCGTGGCCAGAGTC[A/G]CTTCATAAAACCTCCACCGTCCCATTGGCGCTGGTTTCCCCGAATTCCTCAAGCAGCTCC
ARS-BFGL-NGS-11383	Verification	rs110577061	ss86325850	A/G	A/G	17	12891997	UMD3.1	ARS-BFGL-NGS-11383-0_B_R_1511679786	GACGCTCATGCACTCCAAAAAAATGAGCCTCTGCTAGCCGCAACTAGAGAAGGCCCACCA[A/G]CAGGGACAAAGATCCACTGCAACCAAAAATAACAAAATAAATAAATCCATAAAAATAATA
ARS-BFGL-NGS-114006	Verification	rs109737083	ss86339571	A/G	A/G	25	20114319	UMD3.1	ARS-BFGL-NGS-114006-0_B_R_1511648580	TATCATCTGTAGCCCTGGTGCCTTAAATAGTGCCTGGCACAGAGCAGGCCCTCGGCACAC[A/G]TCCCTGGAACGGATGAGTGGTCTGAAGAAGTGTTCTCCACAGCATAATTAGTAACAGCAA
ARS-BFGL-NGS-115514	Verification	rs109164374	ss86339408	A/G	A/G	15	38003134	UMD3.1	ARS-BFGL-NGS-115514-0_B_R_1511652602	GAACAGTCTTCCTTCATGTCTTCACATACTGAATTCCTTTTATGTCTCACCTTTCAGTTC[A/G]GCTGTCACTTCCATGGCCTCCATGATTAGGTCAAATCCCATTCTACAAAGCTTCACGGTA
ARS-BFGL-NGS-117319	Verification	rs42413708	ss86335720	A/G	A/G	16	12238539	UMD3.1	ARS-BFGL-NGS-117319-0_T_F_1511653303	ACGGACCCACATTCCTAGAAGTAACATGAAATTTAAGTGGCCTCTGAGATTTAGGGGGCA[A/G]ATGGCTGAGTGACTGGGTGAATGACCTTTTCCTTCTAAATTATGCTCACTGTTGGCCCAC
ARS-BFGL-NGS-117322	Verification	rs109998259	ss86339948	A/G	A/G	11	77884744	UMD3.1	ARS-BFGL-NGS-117322-0_T_F_1511654061	ATTCCTGAACCAAACCTGGAGGGTACACCTTCTCTGAAAATAGCATTTTTCAGGTCAAGG[A/G]CACCGGCGCCCACGCAGAGGCCGAGCAGCGAACACCTTTAGGAGGCCGGGAGGTCACAGA
ARS-BFGL-NGS-118319	Verification	rs110473808	ss86335543	A/C	A/C	17	9279323	UMD3.1	ARS-BFGL-NGS-118319-0_T_F_1511654651	CCGAGCAGATGGAACACTGCTTCCTTGATGTGATTTCTGGAGTCCTGGAAAGGTCCGGGA[A/C]TGCTACTCCGTGGCTTGTGCTGGCCTGATGTCTCTACTTTCACCTTCCATGTGTTTTTCA
ARS-BFGL-NGS-118340	Verification	rs110706775	ss86338640	T/G	A/C	18	26844474	UMD3.1	ARS-BFGL-NGS-118340-0_B_F_1511653716	CTGAGATGGCCACACCCGTTCCCAAGTGTGTACAGGGCCAGGGGCTCCAGCCCAGGTTGT[A/C]TCTGCCCTGGAGCTAACTTCAGGTTGTGTGCAGGGACATGAGAGCTGGCCATGCTCGCCT
ARS-BFGL-NGS-119662	Verification	rs108959343	ss86340083	A/G	A/G	6	118292328	UMD3.1	ARS-BFGL-NGS-119662-0_B_R_1511658296	CAAGTAGCACAGAGGAAAGCCAAGCCCGCTGTGTGTTCCTAGCAGCTGTGGGCTCACCGC[A/G]CACGTTGGTGCAAAAACCCAAACGGCCTCTCAGTCCAGAGACGCCTCCTTCTGCGAGCCG

SNP name	Group	rs	ss	Forward A/B alleles	Top A/B alleles	Chromosome	Position	Assembly	Illumina Probe ID	Genomic flanking sequence
ARS-BFGL-NGS-14740	Verification	rs109548782	ss86311604	A/G	A/G	9	14436985	UMD3.1	ARS-BFGL-NGS-14740-0_T_F_1544344933	AAGCAGCAAGAGGAGAACCAGTTTTTATGTTCATGAGCGGCCAAAGAATGAACCATCAGT[A/G]TGTTAAAGGATTCAGACTCAAAGGAAGGAAAAGTATCCTCTTACATATCAAAAGAAGGGA
ARS-BFGL-NGS-15506	Verification	rs109448272	ss86285779	T/C	A/G	5	88334676	UMD3.1	ARS-BFGL-NGS-15506-0_B_F_1511639440	GCCTGGCATGCTGCAGTCCATGGGGTTGTGAAGAGCCAGACATGACTGAGCAACTGAACT[A/G]AACTGAATCCAAAAACTGGCCTTTTCTCCATCACCTCTCTCTCTCTTATCCAGAGAAATT
ARS-BFGL-NGS-15731	Verification	rs110220596	ss86301690	T/C	A/G	7	96936145	UMD3.1	ARS-BFGL-NGS-15731-0_B_F_1511640156	TGCAAGACTGAGCCAGCTGCCCTCTGCGATTTCATTTGGTATCACATCCTTGCTGGGCTT[A/G]CTTCCTTTCTGGCCCTGCACTCCCAACCTTCTATTTGCTTTCCTGAGCAAATTTCCTAAT
ARS-BFGL-NGS-24419	Verification	rs42002380	ss86317653	T/C	A/G	22	11756783	UMD3.1	ARS-BFGL-NGS-24419-0_B_F_1511661234	TCAACAAAGCCAAGAACCATTCCTAGAATCATTCGACCTACTCAGTAGAATCAAGGCCTG[A/G]TTTTCTAGATCCTAAGGATATAGGCAGAGAGACAAGGGCACAAGGGCAGAGCACAAAGTA
ARS-BFGL-NGS-26517	Verification	rs109651210	ss86291238	A/G	A/G	21	52139183	UMD3.1	ARS-BFGL-NGS-26517-0_B_R_1544345992	AAGGCTTACTACTTCTTCTCCCTGGTGAAGAGCTGTTTCCATTCTGGTTACCAGAAAACA[A/G]TGGTGTATTTTTCACTGATTGGCCTGCATTTTTAAAGCTGACAATTTTGCTTAATATCAT
ARS-BFGL-NGS-27577	Verification	rs110735554	ss86284992	A/G	A/G	7	26066004	UMD3.1	ARS-BFGL-NGS-27577-0_B_R_1511658878	AGAGAAAGAATGACAGGAAAATGAGAGATAGAGAAAGAGAGTTAGTTAGTTAGTTTTAGA[A/G]GTGGGAAAACAGAGAAGCAATGGGCCAGAGACTATATATATGAACCATAGCTGAAGTTCC
ARS-BFGL-NGS-31640	Verification	rs108961088	ss86289247	A/G	A/G	9	52430564	UMD3.1	ARS-BFGL-NGS-31640-0_T_F_1544347209	AGCAGATGACTAGGACACAGCTTGGAAGTGAGTTTTCATGGCCGCAAGGTTACAAATTGC[A/G]AACTCAATGTCCTAATGTCAACACATTACCAGTGTATGGGCTAGGACAAGCAGATCTAGA
ARS-BFGL-NGS-31807	Verification	rs43638065	ss86311676	A/G	A/G	10	61684704	UMD3.1	ARS-BFGL-NGS-31807-153_B_R_2084992678	AGTCTTGGCAGTGAAAGCCCAGAATCCTAACCACCAGGCCGCCTGGGGGACTCTTAATTA[A/G]ATTGTGGCATATAGTCAAATTATTTCCATGGTCTGGCTCTTCACTATAATAGTTTTCATA
ARS-BFGL-NGS-36513	Verification	rs110803034	ss86327338	A/G	A/G	19	17236707	UMD3.1	ARS-BFGL-NGS-36513-0_T_F_1544349663	GCTGCCCGTGGTGACTCTCTGACATTCGTTCGCAATGTCCTTTCTCTCTTTGTTTTGCTA[A/G]ACTATGGGCTCTTTGAGGCCAGAGATGATGCCTAAACTGGTGAGAGTTAGTGTCTCCTCC
ARS-BFGL-NGS-38423	Verification	rs110643545	ss86285582	A/G	A/G	3	12709854	UMD3.1	ARS-BFGL-NGS-38423-0_T_F_1511681877	ATCACACTTGTGTAACAATTCAGTATTAATTTTAACCCCTCTCTAGGCCACAGTCTCCTT[A/G]TCTCTACCTCATGGGGCTGCAGTCAGAATAGAGAAGTGGGAGTAGGGGTAGCACTTGGCC
ARS-BFGL-NGS-38620	Verification	rs41902634	ss86313444	A/G	A/G	18	64382705	UMD3.1	ARS-BFGL-NGS-38620-0_B_R_1511682206	GCTCTGCTCAGTGCTCCCTGGCGACCTCAATGGGAGGCAAATCCAAAACAGAGGGCCTGC[A/G]TGTAAACGTACACGCATGCATACGCTGACTCACCGCCGCAGAGCAGCGACAAGCACAGCC
ARS-BFGL-NGS-39978	Verification	rs110425983	ss86287493	A/G	A/G	2	5757355	UMD3.1	ARS-BFGL-NGS-39978-0_T_F_1544349913	AAGGTTGCAGCAGCCCCTGTGAAAACAAGTGACACTCTAGAGAGTAGTTCCTGGAAAGGC[A/G]GGTAGCCCTCACCCAGGCCTGTAGATGTTCTAAAGCTGACAAAGGCAGCAGAGCAGAGAA

SNP name	Group	rs	ss	Forward A/B alleles	Top A/B alleles	Chromosome	Position	Assembly	Illumina Probe ID	Genomic flanking sequence
ARS-BFGL-NGS-42283	Verification	rs109007372	ss86295624	T/C	A/G	11	95543411	UMD3.1	ARS-BFGL-NGS-42283-0_T_R_1511687559	TATGAATGAGAATCTGCATGCCCTCAGGACTGGGCTGTGGGTCCTGAGACCTTCTAGACT[A/G]TGAGGCCTGGTGGAAACTCCCAGGAGGAGATGCAGGAACTGGGCGTCTGGGCAGTGCTGG
ARS-BFGL-NGS-42505	Verification	rs109614825	ss86323142	A/G	A/G	14	62478242	UMD3.1	ARS-BFGL-NGS-42505-0_T_F_1511684693	ATTCAGTGCTTCTCTGATGCCTGTGAAATGATTTCCTATTATGCCTGTGACACCCAGGCC[A/G]CTGGTGAGCTTGGGCTTCTGCTGAAAGGATGCTGGACTTGTTTGAATTTGGGATAAAGGG
ARS-BFGL-NGS-55943	Verification	rs110196141	ss86285855	T/C	A/G	15	64628706	UMD3.1	ARS-BFGL-NGS-55943-0_T_R_1511646111	CTTTGGCTGTGTGATCTAGGTCAAGTAGCTTAATTTCTATGGGCCTGTTTCCTCATTTGT[A/G]AAGTAGTGATGTGTGTATGTGTGTGTATGTGTGTGTGTGTGTGGTCAGTCACTCAGTTGT
ARS-BFGL-NGS-57711	Verification	rs110925558	ss86288575	A/G	A/G	19	40692429	UMD3.1	ARS-BFGL-NGS-57711-0_T_F_1511647417	TCCCTACAGCCCCTCCCCTCAAGCGTGGGGTGACCCACCAATTCTGCCATATTTAGCTGA[A/G]ATGCAGGGCCTGTTCCCAGAAGTGAGCATTGGTGGGGACACCAACGGGCGGGCCCCTCAA
ARS-BFGL-NGS-58613	Verification	rs42254761	ss86288950	A/G	A/G	4	78609385	UMD3.1	ARS-BFGL-NGS-58613-0_B_R_1511646378	AGGAAAAATGACATATGAGAGGATGGTGAGGTCTCGAGTGAGTCCCTGGGACGGCCCACC[A/G]CGTGAGAGTCTTTGGCTTTGGGCAGGAAAAGAATTCAAGAGTGAAACATAGTAAAGTGAA
ARS-BFGL-NGS-67146	Verification	rs109136926	ss86297381	T/C	A/G	2	118773633	UMD3.1	ARS-BFGL-NGS-67146-0_B_F_1544351966	GTCAGCGTGGGAAGGAGGGAAAGAAAAGACTCAGCCAAGTGTCCCGAGGAGGAGCCGGCC[A/G]GGGAGGGGAGAAAGGGAGGATTTCTTTTCCAGGGTAGGGTTTAATTACGGGAGATTTTGT
ARS-BFGL-NGS-70946	Verification	rs109933901	ss86300858	A/C	A/C	10	14574453	UMD3.1	ARS-BFGL-NGS-70946-0_T_F_1511672045	GAGTAAAACAGAAAGAAGATAGTAGGACAAATTCTCAAGAATCTCAAGGTGTTGGCCACA[A/C]TAGTGAATTCTGAGGTCACCTGTGCTGTGATTAGTAGATTAAACCAGACAAGTTAAGCGA
ARS-BFGL-NGS-72471	Verification	rs109989231	ss86302621	A/C	A/C	7	103375625	UMD3.1	ARS-BFGL-NGS-72471-0_T_F_1511661821	CAAACTTTATGACCCTAAGCAAACATGATCCAAAGGCCTTCACTGATTTTAAAACAGGTC[A/C]ACTCATTTATTCCACCTTTAAGATCACTACAGATGGTGACGGCAGCCATGAAATAAAAAG
ARS-BFGL-NGS-76191	Verification	rs110846944	ss86306783	A/G	A/G	11	62732451	UMD3.1	ARS-BFGL-NGS-76191-0_T_F_1511671491	AGTCACACATCTCTCACTTTAAATCAAAAGGTACGAATGATTGAGCACAGAGAGGAAGAC[A/G]TGTCAAAAGTTGAGATAGGCCAAAATCTAGGCCTCTTGTACCAAACAGATAGCCAGGTTG
ARS-BFGL-NGS-76330	Verification	rs109978585	ss86306259	A/G	A/G	28	33449126	UMD3.1	ARS-BFGL-NGS-76330-0_B_R_1544351882	AACGTCTCCAGACCTGGCTTTCACCTGGAACACTCTTTGTAACTCCAGTGCCAGGCCCGC[A/G]TAAGGCACTCAAAAGATGCTTGTTAAGTGAGTCACTGAATGTCCATTTCCAACATGGGGA
ARS-BFGL-NGS-86662	Verification	rs110949105	ss86316540	T/G	A/C	1	40206017	UMD3.1	ARS-BFGL-NGS-86662-0_T_R_1511691827	GCCTCATAAGAAAGTTTGCTGTTTTCTTGGTCACATTTGTCATCCATGGTGAGAGGTCAG[A/C]ACATCCATCTGGGCCAGAAGAATGAGCTAATAATCTGCTGGCTCTTTCTTATTCTGTCTC
ARS-BFGL-NGS-93119	Verification	rs109133051	ss86323810	T/C	A/G	9	28149131	UMD3.1	ARS-BFGL-NGS-93119-0_T_R_1511691943	GTCCTGACGAAAGCAGTGTTTGGATTTCACAGGCTCTGGCAATGTGGCCTTGAGGACTTA[A/G]GGACTAAGTGATCACAGGGTCATATTTATGGCAGTGCACACTTGTGGAGCACTGCCATGC

SNP name	Group	rs	ss	Forward A/B alleles	Top A/B alleles	Chromosome	Position	Assembly	Illumina Probe ID	Genomic flanking sequence
ARS-BFGL-NGS-96125	Verification	rs42640153	ss86326564	A/G	A/G	20	58449212	UMD3.1	ARS-BFGL-NGS-96125-0_B_R_1511694234	GCAAGGAGAAGCGGGGAGGGCTCTGGGTGGGGCTTTGGAGTGATGGAGCAGAGTCTGCTC[A/G]GGGCTCACAGAGAAGAGGCTGGGCCTGGGGGATGGAGGGATGAGAGGTCGGGTGAGGTCA
ARS-BFGL-NGS-99210	Verification	rs110578763	ss86329428	T/C	A/G	17	52740918	UMD3.1	ARS-BFGL-NGS-99210-0_T_R_1511693633	TAATCCTAGGCTCCCATAGAACAAAACTGCCTAATGGCCTGATACTGGCCTGTGGCCTGG[A/G]AGTTGGGGATCCCAGCGTTAAACGCGAGCATTCTCATCTGAGGTTCAGCTGGGGAAGACT
ARS-USMARC-569	Verification	rs109650557	ss117962557	A/G	A/G	17	30360942	UMD3.1	ARS-USMARC-569-0_T_F_1544362799	AAGATTGCAGAAAGGCACCAGGACAGCCCACCTAGATTAATCAGAAAGGCTGTCAATACC[A/G]TTTCCTCTAAGATGCGACCAGTACAGAGGTGGCTGAGATCAGCTTGTCCTCTGCTCAGAC
ARS-USMARC-PARENT-AY841151-RS29003466	Verification	rs29003466	ss38340727	T/G	A/C	2	45832887	UMD3.1	ARS-USMARC-Parent-AY841151-rs29003466-0_T_R_1544362781	CCTAAACAAAAATGAGAAATATTGACTACACGCCCTCACAGTTGATTAATGATAGCAGAA[A/C]AACAMACCTGAATTCCATGAACCATCTTTGGAAGGCAAGCCTTATTACTTTATTTTCTTA
ARS-USMARC-PARENT-DQ786765-RS29009858	Verification	rs29009858	ss38324353	T/G	A/C	9	98483346	UMD3.1	ARS-USMARC-Parent-DQ786765-rs29009858-0_B_F_1511686274	AAGGCAAGACCTATGGTCGAACTGCGGGACACTGGGCCTCCGTAAAAACCTGGGGGATCG[A/C]GGCTAACCAGCTCACCAGCACATACCCCAAAGGGTCCAGGAAAGGAGTCCTAAGGGAGAC
ARS-USMARC-PARENT-EF026085-RS29021607	Verification	rs29021607	ss38330092	A/C	A/C	21	65198296	UMD3.1	ARS-USMARC-Parent-EF026085-rs29021607-0_B_R_1511685904	ACCCAGGGATCAARCCCTAGTCTGCTGCAGATTCTTTACTTGCTGAGSCATTGGAGAAGA[A/C]CTTTAGTTCAATTGAATTCCAAGCCCTGCCCAATGCCAAGTCATGACATGGGCTAGAGAC
ARS-USMARC-PARENT-EF089234-RS29020870	Verification	rs29020870	ss38328561	A/T	A/T	23	50884052	UMD3.1	ARS-USMARC-Parent-EF089234-rs29020870-0_T_F_1511686061	CAGACAGGCTTCCCAGGAGGCCCCCGTGTCAGATGGAGGGCCTGAGGGACAGCAATGAAG[A/T]GTCAAGGCTGCAGGGGAAGGGAGGTGGGGGAGGGCCACGTTAGGAGTGATGGATAACAGT
BTA-100621-NO-RS	Verification	rs41611675	ss61512369	A/G	A/G	22	25598780	UMD3.1	BTA-100621-no-rs-0_T_F_1511593240	CCTGTGTGTGTGCATGCTTAGTGGCTTCAGTAGTGTCCACACTTTGTGAACCCTTGGACT[A/G]TAGCCCATTAGACTCCTCTGTCCATGGAATCCTTCAGGTAAGAATACTGAAGGGGGTTGC
BTA-11701-RS29017459	Verification	rs29017459	ss38333753	T/C	A/G	11	61989432	UMD3.1	BTA-11701-rs29017459-0_B_F_1511622709	TAGAGCATTATCAAAACTAGGAAACCGACTAAACTACACACAACACTGTTAAATAGGTTT[A/G]CTCAGATTTCTACAGTTTTTATGTCTTTATGAATGGTCCTATGTCATCCAATTATAT
BTA-30857-NO-RS	Verification	rs41579524	ss61479561	A/G	A/G	12	80058952	UMD3.1	BTA-30857-no-rs-0_T_F_1511625792	TATACTTTGGCAACATAATGGCTAACAGAGCATAGTAACCAGTAACAGATTTTGCTTGCT[A/G]TTTTAGTTTTTTAATGTTTTTTGATTAACAAGGAAGGATAGCTCAAATGACGAAAGAAAA
BTA-37062-NO-RS	Verification	rs41632769	ss61536141	T/G	A/C	15	51528617	UMD3.1	BTA-37062-no-rs-0_B_F_1511533983	TTCTCACTTCTGTGATTAAGCTTATTCTTTTTCTTTATTTTTGAATGTGCTGGGTCTTCC[A/C]TGCTCTGTGTGGATTTTCTTCCTTGCAGTGTGCAGGTTTCTCTTGGTTTGAAGCACCAGC
BTA-73768-NO-RS	Verification	rs41647805	ss61555892	T/C	A/G	5	67031023	UMD3.1	BTA-73768-no-rs-0_T_R_1511550568	ATCTTCAGTACTTATACATGACACTAATATTAGGGGAAATTGGCTGCAGAATATATGGGA[A/G]TTCTCTCTACTAGCTTCTTACTTTTTTGTAAATTTAAAGTTGATCTAAAAAATAAAGTCT

SNP name	Group	rs	ss	Forward A/B alleles	Top A/B alleles	Chromosome	Position	Assembly	Illumina Probe ID	Genomic flanking sequence
BTA-92021-NO-RS	Verification	rs41663009	ss61565762	A/T	A/T	11	9385008	UMD3.1	BTA-92021-no-rs-0_B_R_1511548279	AATGCTCCAATCAAAAGACATAGAATGGCTGAATGGGTAAAACACAAGAATCATACACAC[A/T]CTGCCTCCAAGAGATTCACTTGAGACCTAAAGATACACAGAGACTGGAAGTGAAGGTCTG
BTB-00188171	Verification	rs43396375	ss65312019	A/G	A/G	4	57787437	UMD3.1	BTB-00188171-v2-1_T_F_1924252375	AAAAATGAGATTGTGAAGGGCAATGCCAAGGAAAGTGACTCCTAATCTCACTGCCAGAAT[A/G]TGGGAGGCTTCAGGGCATCTGCTATACAAGCTCATTCCAAGAGGTTCCTCATAACTGCAG
BTB-00394801	Verification	rs43599414	ss65518069	A/C	A/C	9	59383405	UMD3.1	BTB-00394801-0_T_F_1511574086	ATTTGCTCCCTTGTTTAGGTTGCAGTTCTGAGCTCTTTAGTTGCTATGGTGACAGTAATA[A/C]TAAAGGCTGATTGGAAGAAGACATCTTATCTGGGATTTTTGTTGTTGAGAGAGGAGACCA
BTB-00420215	Verification	rs43625528	ss65543436	A/C	A/C	10	44920804	UMD3.1	BTB-00420215-0_T_F_1511581596	CTACATTATAATCCCTTGTTCAGACACTCAGCGGCTATGCCCCCAACCAAGTTTCTTAAA[A/C]MTGAACCAACCAAGCACACCAACAAGCTCGGGATTCCTGTTTTGTGTCACCTCTACATTC
BTB-00818821	Verification	rs41981646	ss62736870	A/G	A/G	21	40408803	UMD3.1	BTB-00818821-0_B_R_1544355596	GTGGCAATTTATTCCTGATTCTTTTTTCAGAAGTAAGATAAAATTGTGAAAATAAACACC[A/G]GAAGTCTGCTAGTTGAAACTTACCCATTGACAAATAACATACGTGCCTCCATTGTCAAAA
BTB-01057979	Verification	rs42223561	ss63390705	T/C	A/G	1	114085424	UMD3.1	BTB-01057979-0_T_R_1511598216	TCATACTAAATACTCCTTTCAGTTGAATGTTGGCTACAGGCTTCTATATCTCTGATCATC[A/G]TGTATATTTGTATTGGGATACTAGAACTTCTGAGTTATTTTTTCTATTGGATATGTTCTA
BTB-01285245	Verification	rs42411615	ss63968561	T/C	A/G	1	63277846	UMD3.1	BTB-01285245-0_B_F_1511617607	TGTGTTAATTTTATGTTATCCCTTTATCTTTAGGATTAAAATGGAAACTTTCTAATTAGT[A/G]TCATATAATCAGTTATGGTCATTATTCTTTTGATGACCAAATTGAACAGTTGTGTGTGTA
BTB-01371672	Verification	rs42492955	ss64140877	T/C	A/G	15	50566485	UMD3.1	BTB-01371672-0_T_R_1544358117	TACAGGAAATTGTGAAGGTATTTGCATATGCACACATGTATCACTTATCCAAATATTTAA[A/G]AATGAAGTTTTAATAAAATATTTGTTGGAGTACAGCTCTGAATCTATGTAAATTATCATC
BTB-01416427	Verification	rs42537334	ss64230252	T/C	A/G	19	52911677	UMD3.1	BTB-01416427-0_T_R_1511613730	TTGCATTTATACATTAAGAGGATAAACCAGTTGCATCTAAACTCTTTGGGTACTTGTGAT[A/G]GCTTTAATTAGTTTACAACTTTCTGGTTTATTTCCTCTAATTTTTCTATCTCCCTAATCT
BTB-01478115	Verification	rs42595691	ss64353011	A/G	A/G	4	42103377	UMD3.1	BTB-01478115-0_T_F_1511627148	TAATGGGTCTCCAAATGTTTGCTTGTTATAGCATACAATGCTTGAGAGGAAAGGGTTTAA[A/G]CTGATGGTTTGTTATTCATATGGTAAGGGAAAGCCTGTTTTTATTAGCACTTTTCCCCCA
BTB-01902778	Verification	rs43014084	ss64919224	A/G	A/G	6	114165533	UMD3.1	BTB-01902778-0_B_R_1511543811	AGCATCCTGGTGACTTCAGGGGTAGATGTGTATATTGAGCTCACATCAGAACAACTGCAG[A/G]AAAAAAAGAAGAAAAGGAAGCCAGACAAGGAAAGTGAGATGGGGTGAATATCCCTGCTGG
BTB-01980499	Verification	rs43084864	ss64996227	T/C	A/G	12	61345454	UMD3.1	BTB-01980499-0_T_R_1511562008	TGTGAGCAAACAGTACAAAGTACACATGCTTTCTAAATCCAAGATCTAGACTCCATTATT[A/G]ACTGAACAGGGGCCTCTGAGGCCCATCAGCTGTCTAGAAGGCCCCATGTCAGGTATTTCC

SNP name	Group	rs	ss	Forward A/B alleles	Top A/B alleles	Chromosome	Position	Assembly	Illumina Probe ID	Genomic flanking sequence
HAPMAP24215-BTA-163266	Verification	rs109704141	ss117974193	T/G	A/C	27	10764825	UMD3.1	Hapmap24215-BTA-163266-0_B_F_1510715935	ACTGTACACATAGGAATTTTAATAATAGTTGTACAGAAGTATAATGAAAAATAATGGTCC[A/C]GCTGAATCCTTAACCATCCCCAGTGCTACTTCCCAGAGGCAAACACTTTTAACTATTTTT
HAPMAP31098-BTA-136127	Verification	rs109479519	ss117972951	T/C	A/G	21	62028408	UMD3.1	Hapmap31098-BTA-136127-0_T_R_1510715012	GCTTTCCAGGGAGACCCTTTGTCTCTGCAGTGATTATCAGCCGAAAATCACCCCCTTTGC[A/G]CCCTTTCAATACTTCCATGGTTAACCCCACGGCTGGAGGGCTGCCTAACGACATTTTTAT
HAPMAP34424-BES10_CONTIG566_926	Verification	rs43708462	ss66538092	A/G	A/G	24	6408329	UMD3.1	Hapmap34424-BES10_Contig566_926-0_T_F_1510715130	CAGAAGGTTTTTAATTTGCTTTGATCAGATCCATCAGTAGAATAACCATTTATGACCGCA[A/G]TAACCTTACAAAATATAATTCTCAAAAGTAAAAATTACTCCTTTGATCCATGGGCTGCAG
HAPMAP35535-SCAFFOLD86180_8791	Verification	rs29023461	ss117973345	T/C	A/G	23	41700829	UMD3.1	Hapmap35535-SCAFFOLD86180_8791-0_B_F_1511627625	ATGAAGAAGGCTAAAGGGAGAGGAGGGGGTCTCAGTTTACTCTGCCGCAAGGCACTGCTC[A/G]AGAAAGGATCTTACTGTCTATACCGTAATGTGAACTCGCAAGACAGCAAGCTATGAACTT
HAPMAP36588-SCAFFOLD90561_9460	Verification	rs29023669	ss117972848	A/G	A/G	20	2289049	UMD3.1	Hapmap36588-SCAFFOLD90561_9460-0_B_R_1511629069	GTCCTGCTCCCCAAGTCCCGGATCTAAGCCCCCTACTGTGAAACGTGGAAGGAGTCAGCG[A/G]TACAGGAAACCTTAGTTCAGCTAGTTACCAGTAAACATATACAAGGTGCTGCTTCTTAGA
HAPMAP39425-BTA-70290	Verification	rs41586923	ss61489805	T/G	A/C	4	10737673	UMD3.1	Hapmap39425-BTA-70290-0_T_R_1509317762	GATATGATTCTGGAGCTTCGGTCACAAAAATGCCACACTCCAACAAGCGTCAGTCTACTC[A/C]ACACACCACTCTTGTAAGGGGACATCCAAATTGGATTGACACCAAAATTTGATTACAATA
HAPMAP39461-BTA-109898	Verification	rs41611358	ss61517053	T/G	A/C	21	27927781	UMD3.1	Hapmap39461-BTA-109898-0_B_F_1509322909	AGTGTGGTATGACAAGAATTACAAAAGCTAACCCAAGAAAGAATCCAGACCTGATCATTA[A/C]GGTTCTCTGCCTTTTCAGTCTGGCAGCAATTGAAAATCACAATCTGGAAACACGTACCAT
HAPMAP40148-BTA-92999	Verification	rs41592395	ss61495728	T/G	A/C	11	36713471	UMD3.1	Hapmap40148-BTA-92999-0_T_R_1509312964	GGAACTGAAAAAATAAATGGCAAGTTAGAATTCTACTCACAGCAAAGATATTTTTCAAGA[A/C]TGAAGGTAAAATAAAAAAACATGGAGACAAAAAAAATCTAAAACAGTTTTGAATCACCAG
HAPMAP40729-BTA-40319	Verification	rs41635414	ss61537824	T/C	A/G	16	19882683	UMD3.1	Hapmap40729-BTA-40319-0_B_F_1509322497	AATTCAATCTAGAGTTTGAAGAAACCAAAAAATGAGCATATAGGTAAAGAGCACCCCAAG[A/G]AAGAGAAAGGAGGGCCATGTTAGTATTCATCCTGTGCTAGAGAACTAGGCTTGCTGGCCT
HAPMAP41591-BTA-59790	Verification	rs41649671	ss117973994	T/C	A/G	25	27912102	UMD3.1	Hapmap41591-BTA-59790-0_B_F_1509322371	AAGACCCCACATGTGGCCTGGAATGGCCGGAAAAAAAATGCTCCCCTTTAACAACCAGG[A/G]AAGGAAGAATGAGTCTTACCTTCTGCAGTACTCTACACATAGAATGTCTATAACAGTGTC
HAPMAP42648-BTA-71195	Verification	rs41653000	ss61554558	T/C	A/G	4	71061224	UMD3.1	Hapmap42648-BTA-71195-0_T_R_1511567042	TCAACCCCTCATGTCCTTGAGAAGGTAACAGAGACCTCAGAAAGGATGTGTGTTGTCCAC[A/G]TGTTTCAGGTAATACGATGACAGAGTCATCACAGAGTCAGGCACTGGCCCAGGGCCCTGC
HAPMAP43057-BTA-80741	Verification	rs41588251	ss61492499	T/C	A/G	7	13279972	UMD3.1	Hapmap43057-BTA-80741-0_B_F_1511566361	GCAAAAGAGTCAGACATGACTTTGTGACTAAACAACAATGACAATAACAAAGAGTCTTAC[A/G]CATCTTTCAGAGATGTCAGCAGCAACAGAGGATGGAGTAGGGATCTGTGTGAAACCATGT

SNP name	Group	rs	ss	Forward A/B alleles	Top A/B alleles	Chromosome	Position	Assembly	Illumina Probe ID	Genomic flanking sequence
HAPMAP43142-BTA-107561	Verification	rs41567696	ss61472156	A/G	A/G	6	29556343	UMD3.1	Hapmap43142-BTA-107561-0_B_R_1511566213	AAGAGAGCTAGATTACTGAGTGGATGATAGCTTTTACTTTAATTTTCTCTATTTTCACTG[A/G]TGCTTTCAAGCTTAGTGATTCTTTACTAAATTTCTTGATGGCCAAGTGAAATGAGTACAT
HAPMAP43792-BTA-122725	Verification	rs41620645	ss61524403	T/C	A/G	13	83437845	UMD3.1	Hapmap43792-BTA-122725-0_T_R_1511566454	TTCATAATTACTTTTCTCAATGCTGTACCAAGTTTTTTGCATGTAGTAGGGAATCAATAA[A/G]TATCTGTTACATTACTAAAAGGAAGAATGCAGGTAGTCAGTGAGTATTTGATGAATTGCT
HAPMAP43953-BTA-83292	Verification	rs41656801	ss61561086	A/G	A/G	22	54103673	UMD3.1	Hapmap43953-BTA-83292-0_B_R_1509287143	ATTTTTAAGCAGATTTAGTTTGTTCTATTAAAGAATACAGGAAGATTATTGATATTTTTA[A/G]TAGGGACTTAAACTTCTGGCTTTTTAAGAGTTGTTAAATTCTGCTTGGTAAACAAAACGT
HAPMAP46550-BTA-103548	Verification	rs41615770	ss61513810	A/T	A/T	20	30928803	UMD3.1	Hapmap46550-BTA-103548-0_B_R_1509274573	TGTATTGGAAAAGATTTTGAGCATTACATAAAGCCTATTAAGGGTGTTCTAATACATAGA[A/T]GCAAAATAAAAAGTGAAAATATATGGCTGAAGTAAAAAGGAGGGAGTGCCAGTTTGTTTC
HAPMAP46653-BTA-47447	Verification	rs41573026	ss61467906	T/A	A/T	2	41938704	UMD3.1	Hapmap46653-BTA-47447-0_T_R_1509284426	ACACTAAGACCCTGATAAATAGGCAAAAGGAGAGATTACAAAAGAGGAAATATAACTATT[A/T]AAAACATAAAGCAAAATATTCAAAATTTTTATTAATCAAAGGATATAAACTAAAATATTG
HAPMAP47281-BTA-40051	Verification	rs41582312	ss61481907	A/G	A/G	16	72931875	UMD3.1	Hapmap47281-BTA-40051-0_B_R_1511577277	GCAATCTCGGCCTGAGCAGTACCAGAACCGGGGAGCCTTTGGAGTGAGTGGCCTGAGAGG[A/G]AGAGAATACCTTAGCCACAGCTTGGCATGCAGGTATCAGTCAGAGGGAAGAAAGTTGGGC
HAPMAP49452-BTA-112834	Verification	rs41569794	ss61473375	A/G	A/G	4	72987997	UMD3.1	Hapmap49452-BTA-112834-0_B_R_1509305577	GTTGGACACAACTGAGCAACTAACAGTTTCATTTTCATAATTAACAAAGTGCCTTCCCAT[A/G]AATTAGATCATTTATGCCTCACAGGAAGCCTGTAAAATAAGAATTACAGAAGTTCCTCTG
HAPMAP50598-BTA-122724	Verification	rs41575075	ss61475502	A/G	A/G	19	4670556	UMD3.1	Hapmap50598-BTA-122724-0_B_R_1511601629	AAGTCATTATTAATATAACCCTCTTTTACTTTCAAAAATGCTATGTTTGGACAATGAATC[A/G]TATGATCTCCTTAGTTAAATCAGGATGAAACTCTCTAGGTTATATTGCATTCTTATTTTA
HAPMAP51227-BTA-41809	Verification	rs41634345	ss61538562	A/G	A/G	17	67216420	UMD3.1	Hapmap51227-BTA-41809-0_T_F_1511602462	CATTGCAGGTGGATTCTCTACCAACTGAGCTATGAGGGAAGTCCATATAAACCATGTACT[A/G]TTTTATTCTATCTGGTTAAAAAGGACACTACAAGAATATTGTAAGTCTATGTTCCTGAAC
HAPMAP51527-BTA-97415	Verification	rs41665299	ss61568611	A/G	A/G	6	44461834	UMD3.1	Hapmap51527-BTA-97415-0_B_R_1509318683	GTTTCTTTCCTTGGGATTTTTATGGAAAAAATAATACAGACTAAAGTAAATATGAATCAT[A/G]TATTGCACAAACCAATAATTTTGTGTTTGCCTCTACCATCCATGTTTACATATTTTGTAT
HAPMAP51908-BTA-63031	Verification	rs41648007	ss61550226	T/C	A/G	27	41049981	UMD3.1	Hapmap51908-BTA-63031-0_T_R_1509319646	TGGGGCAGATAGGGGTGAGAAATATTGAACAAATGAAGCAAAAGATAATAATAAATGTAC[A/G]TACATGATTTGTTTTTATTGTTGTTGTTCAGTAACTAAGTCCTGCCTGACTCTGCAACCC
HAPMAP52240-RS29013844	Verification	rs29013844	ss38322744	T/G	A/C	28	20453054	UMD3.1	Hapmap52240-rs29013844-0_T_R_1511602284	TGAGAATTAGGACTGCAACATATGAATTTGAGGAGAACATAACTCAGACCACTGGCTAAA[A/C]CACTGGTAGTCTTAGAACAATGTAACAAAATCCACCATCTCCACAAAATAAAATTCAAAT

SNP name	Group	rs	ss	Forward A/B alleles	Top A/B alleles	Chromosome	Position	Assembly	Illumina Probe ID	Genomic flanking sequence
HAPMAP54020-RS29023153	Verification	rs29023153	ss38336442	A/G	A/G	18	6776532	UMD3.1	Hapmap54020-rs29023153-0_T_F_1509313606	AAGAGAAGATGAACTTATTTACCTCCTCTTGGAGGAGTTCATAAGATCCCCTCAGTGAGA[A/G]TTTCTTCTCTCTCTCCTTTCCATGGCCTCCCCTGACTGTGTGTTTGAGTCCAGGACAATC
HAPMAP54313-RS29012632	Verification	rs29012632	ss38323727	T/C	A/G	9	83320792	UMD3.1	Hapmap54313-rs29012632-0_T_R_1511548090	TCTCAGCACTCATTCCCATGGGGTAGCTTTGAAATGGATTAAACTTCTGCTAGAGTGGTA[A/G]AATCCAGTGCATATATAAAAAGCGCATTATTTAAGAGCTTGAAGCTGAAAGGGGATTTGA
HAPMAP54547-RS29012198	Verification	rs29012198	ss38323285	T/C	A/G	4	110776624	UMD3.1	Hapmap54547-rs29012198-0_T_R_1509327754	AAGCAGCAGCAGCTAAGGGGAAACGTGATCTCGAATAACACAAAAAATATGCAACCTTCC[A/G]TTTACAATCAAATGCTAGGTGTCATCCTCATGACTGATGGAGTGAGGAGGTAAGGCGTGA
HAPMAP55441-RS29010990	Verification	rs29010990	ss38325276	A/G	A/G	8	103137122	UMD3.1	Hapmap55441-rs29010990-0_B_R_1509329479	TATATGTATCAGTCATCTTGAACTTAAGAATCATTTTCTCAAGTTCAAAAAAATAATAAA[A/G]CCAGGGGAATTTATACAACTCTGTGGAATGATAGGGATATATTATAAAATGTCCTTTCTC
HAPMAP59876-RS29018046	Verification	rs29018046	ss38335133	A/G	A/G	2	13853729	UMD3.1	Hapmap59876-rs29018046-0_B_R_1509290295	TGTCAATATCAAAAAAAGAAAAAGAAAAACAGAAAACTACAGGTAGTTTGTCTTATATTA[A/G]AATCTTTTTTTGTGGGTGGGTTCTCTAGAGACCTGTCTGATATCCCAGTATTTGTTTCAG
HAPMAP60017-RS29023471	Verification	rs29023471	ss38336762	A/G	A/G	7	81668727	UMD3.1	Hapmap60017-rs29023471-0_T_F_1511552944	GATGATAGTTTGACAATTAGAACAGTTATTCTGTTCCATTTGAATGTTACCTAATATCCT[A/G]GCTTTTTTAAAAAAAAGTATGGCTAGCATTTTCACAATATTCAAAATACTTTAGAAGCCC
UA-IFASA-5034	Verification	rs29024763	ss117965805	T/C	A/G	29	29052623	UMD3.1	UA-IFASA-5034-0_B_F_1511686988	TGGCCATTCTTATGATTTATTCAAATACTCATTACAGTCAATCTATTTTTACACAGAGGT[A/G]AAGATGTGCGCTGATAACGGTTAATCATTTATAATTCCATGGACTGGTTGGGAGCCAATG
UA-IFASA-6532	Verification	rs41640891	ss117965542	T/C	A/G	22	21770149	UMD3.1	UA-IFASA-6532-0_B_F_1511687122	GGATAGACTCTTTCTCGCCTCGCCCTTCCTTTGATCCTGTCTCTGTGCCCTTGCTCTCGC[A/G]TCAGATCCTGGAAGCCGTCACGATGCAGCACATCTTCATGAACAACTTCCAACTGTGCAG
BTA-108007-no-rs	Discovery	rs41664832	ss61570066	T/G	A/C	1	116419981	UMD3.1	BTA-108007-no-rs-0_B_F_1511607063	GACACAGACTATCTAAATAAATTAAGTGATAAGTATTTATAAATGGAATCTTTTTCTTGG[A/C]AACTCTTGATTTCATGAGAATTTCTCTATGTATATTAAATACAGTCATTGCTCTGACATG
Hapmap49586-BTA-36632	Discovery	rs41582641	ss61481018	A/G	A/G	1	79700956	UMD3.1	Hapmap49586-BTA-36632-0_T_F_1509284406	AATTCTAACAAAGTCAGCAACTCCCCAAAGAGTCTTCAAAAATAGATTGTCTGTGTAGAC[A/G]AGAAAGCTAGACGTCCAAGGAGAGAAGGAAAAATACCTTCTTTAAGTAAAAGAAATCATA
ARS-BFGL-NGS-103086	Discovery	rs109595377	ss86330023	A/G	A/G	2	2858436	UMD3.1	ARS-BFGL-NGS-103086-0_T_F_1511673189	ATTGTGCCTTCAGTTTACTTCCTCCCACCTGAAGCACTGTGGAACCATCAGTCATCTCTT[A/G]GGATTAGGGCCCACCAGAGAACAGACTTGGATACTGGAAGCAAGAAACCCCACACAAGTC
BTB-01294230	Discovery	rs42418154	ss63986515	A/G	A/G	2	55038193	UMD3.1	BTB-01294230-0_B_R_1544352864	ATTTTCTAATCTAGAGCATTTTTTTTTGTCTTTATGACTCAGCTGGTATTTGAAATGAAA[A/G]GTGATACCAGCTTTGTCCTTAGTAAGATAACAGGCAGCAAAAAGGAAGTAGGTGGACTAG

SNP name	Group	rs	ss	Forward A/B alleles	Top A/B alleles	Chromosome	Position	Assembly	Illumina Probe ID	Genomic flanking sequence
Hapmap44202-BTA-115270	Discovery	rs41620314	ss61519990	A/G	A/G	2	62367003	UMD3.1	Hapmap44202-BTA-115270-0_T_F_1509288282	CTTTCTGAGTTTTTTGTGGAATGCCCTTAGTTTGTTTCTTAGAATTAGGTTTGGCTACAA[A/G]TAAATGTAAATCCAAATTAACAATGACTTAAATACACAAAATTTCACTCTTGGATACAGA
Hapmap53350-ss46526471	Discovery	rs41256934	ss46526471	T/C	A/G	2	125653839	UMD3.1	Hapmap53350-ss46526471-0_T_R_1511618084	GGACCACGAGTTTGTTGCCAGGGGACACTTGTTCCGGAAAGGCATCATGAAGATCGTGGT[A/G]TACAAGATCTTCCGCATCCTGGTGCCAGGGAACACGGACAACACTGAGGCCTTGTCACTG
ARS-BFGL-NGS-116451	Discovery	rs42527283	ss86340874	A/C	A/C	3	114252911	UMD3.1	ARS-BFGL-NGS-116451-0_T_F_1511652913	AAGCACCTGGACTAGAGGTGGATGTCTCTGTGCTCCTGAAGGCCGGATGACCACTCGCTG[A/C]CCAGTGCCATGGATGCGTGATGTCCCCAGAGGCACGCGTCCCCCCCACCCAGCCTCACTC
ARS-BFGL-NGS-99338	Discovery	rs110474631	ss86327855	T/C	A/G	3	21869985	UMD3.1	ARS-BFGL-NGS-99338-0_B_F_1511693580	GCCAGCCCCCACAGGGCAGAGCAGGCCTTGGGGTGGGGCCTCCATCTTGTAGGAGACTGA[A/G]TAGCCATGATGCCGAGGCTTGGAATGAGACTGTGTCAGTGTTGCCACTAGCACACGGCCT
ARS-USMARC-Parent-DQ422950-rs29012306	Discovery	rs29012306	ss38323393	A/C	A/C	3	3129167	UMD3.1	ARS-USMARC-Parent-DQ422950-rs29012306-0_T_F_1511685891	ACAGAGGATAGTACACAGGTTTTTCCAAACTTACTTGTTTCCAACACCTCTTTTCCTCCC[A/C]AAACCACTGTTCCAAGGCACATATTTTGGGAAATACTGCTGCAGGATATTAAAGAAAGAG
BTA-99693-no-rs	Discovery	rs41596848	ss61497421	T/C	A/G	3	39522643	UMD3.1	BTA-99693-no-rs-0_T_R_1511575788	TTTCAGAAGTATTTCAGTCCTATTTAAATTTGTTTTTGGCACCAGCTGACAATCCTGACA[A/G]TCTCCTCTGAAAGTGAAAAGTGAAAGTCACTCATCTGTGTCCAACTCTTTGTGACCCATG
Hapmap39765-BTA-62582	Discovery	rs41646786	ss61549999	A/C	A/C	3	99317016	UMD3.1	Hapmap39765-BTA-62582-0_T_F_1509323564	CCTGGGTGGCAGAGATATGGAGACACCCCAGGCTGATGAGGTGAGAAATCAGTAGAGAAC[A/C]CAAGGATTAGGTGCTGTTAAGAGCAAAAAAGACACACTGATAGACTTCTTAGGGGTCAGA
ARS-BFGL-NGS-51490	Discovery	rs109483098	ss86281895	G/C	C/G	5	16522966	UMD3.1	ARS-BFGL-NGS-51490-0_B_F_1511692974	GCAATGCTACAAAGTAATGTTTATTCCTTTCTACTCTAGATGAGAGAAGACTGAGGCCTA[C/G]AGAGAAAGTGGTTTACCTTTGGTCCACTATCTAGTGAGTGTAAGTCAGAAATAAATTGAG
BTB-01498887	Discovery	rs42620770	ss64394240	T/C	A/G	5	97111	UMD3.1	BTB-01498887-0_T_R_1511627014	TTGACTGCAGAACTTTCACAGGTCTGGGGAAACAGACTAGGTGAGCACAAACAAAACCTC[A/G]TATGTGCCAGGATCCAGGAGAAAGGAGCAGTGTCCCCACAAGGGACTGAGTCAGACTTGC
Hapmap50084-BTA-74042	Discovery	rs41650242	ss61556030	T/C	A/G	5	75417666	UMD3.1	Hapmap50084-BTA-74042-0_T_R_1511601574	GACAAGCTGCAGGAGATGTTTTAGTGATGATGCTATTCATGGTACAGTCTGTCTTTCCCC[A/G]GTTGTATAAGGACATTAAATGAGGAAGCAGAGTTGGAGGCTGGTTATAGAAATTCCTCTT
ARS-BFGL-NGS-2141	Discovery	rs110850872	ss86295109	T/C	A/G	7	16371434	UMD3.1	ARS-BFGL-NGS-2141-0_T_R_1511649691	TGGATGACAGATCTGGGTTCACACAGAGACAAGCGAGGCCCGTTCAGCAAAAACGCATTG[A/G]CTCCAGTTTTTCATTTTTATTTATTTAAATATTTTTGCCACGCCTTGTGGTTTATGAGAT
ARS-BFGL-NGS-61492	Discovery	rs110210825	ss86290741	T/C	A/G	7	70011889	UMD3.1	ARS-BFGL-NGS-61492-0_T_R_1511652427	TGTCTTTGGTCACTCTGTCTTAGCCACATCAGTTACCTTGCTGTTTGCTAAACACACCAA[A/G]CTTGCTTCCACTTCAGGGCCACTCTCCCCCCTGAAGACCTTGTGAGGATGGCCATGACCA

SNP name	Group	rs	ss	Forward A/B alleles	Top A/B alleles	Chromosome	Position	Assembly	Illumina Probe ID	Genomic flanking sequence
BTA-09064-rs29025231	Discovery	rs29025231	ss38331116	A/C	A/C	7	112265796	UMD3.1	BTA-09064-rs29025231-0_B_R_1511596353	ACAATGTACATGATTTGAAAAAAAAAAAAAAGTATTGATTGTTTTTGTTCATCAAG[A/C]CATTCACAAGTTTCAAAACGTATGTGCCTACACACGCATTCAGAGTGTCTGCCACGTGAG
ARS-BFGL-NGS-28141	Discovery	rs109555469	ss86325310	T/C	A/G	8	97241486	UMD3.1	ARS-BFGL-NGS-28141-0_B_F_1544346378	GAAGTTTAAAAAGTTAAACAAGCCAGCCATCCTACAGACTTTTTTTTTTTTTTTATCTCT[A/G]TTGTGGCCACTCCTCCAACTCCCATGATGTGTTCCTCCATACTGTTGACTTTGGGAGGTG
UA-IFASA-2534	Discovery	rs29009895	ss117963993	T/C	A/G	8	45804905	UMD3.1	UA-IFASA-2534-0_T_R_1511685815	AAATAGGAAATAAACAGCATCAGAGCTAACAGACCAACCTGGGAGATGAACTTTCCAGGC[A/G]AGGATACCACAGTGAAGAAACACGTGGACACTTGGCTGAGGGGGGGACTGACCGGGGTTT
ARS-USMARC-Parent-DQ837646-rs29012894	Discovery	rs29012894	ss38323993	A/C	A/C	11	1703612	UMD3.1	ARS-USMARC-Parent-DQ837646-rs29012894-0_T_F_1511686081	CCAAAYGGTCTACTGGGGTCCCTCTGGCCACCCCTCCAATCCATCTCCAGTGGGTAGCCA[A/C]AAATCACCCTCAGATGTACATCTAAGTCATGTYACTCTCTTCCAACGGCTTTCCTGTTTT
BTA-88608-no-rs	Discovery	rs41597697	ss61494512	A/G	A/G	11	24317047	UMD3.1	BTA-88608-no-rs-0_T_F_1511561294	CATTTGAAAGACTTGCCATTGATGGTCAGATTACTCTCTGTCTCTGTTTTTCATCTGTAA[A/G]GGAGACTAAACAATAGCACCTACTTAATGAAACTGGATTAATTGAGATAATACTGGTAAA
Hapmap41140-BTA-107332	Discovery	rs41616688	ss61515739	T/C	A/G	11	78545016	UMD3.1	Hapmap41140-BTA-107332-0_T_R_1511629008	TGAAGGAGAGGCCAACTGAATATTAAAAGGAGAGCCAGAGGCATATCCCTGAATATAAAC[A/G]TGCCTGGATAGGGTGGGGTTCTCCCAGCTTTTTATGGTTTTTCAGAGGGAAATCCTGGCC
BTA-92697-no-rs	Discovery	rs41661000	ss61566157	T/C	A/G	13	50910557	UMD3.1	BTA-92697-no-rs-0_T_R_1511561324	TCTGAGCTAATATGAGGGCTTATTGGAAAACTTGAAACAACCAATAGAGACCATGAAAAT[A/G]TTAGTATCAGAAATACATAGAATAAAAATTTTGTTAAGACCAGCTATGAATTTAAAATGG
Hapmap39398-BTA-31996	Discovery	rs41632359	ss61533405	A/C	A/C	13	26708860	UMD3.1	Hapmap39398-BTA-31996-0_T_F_1509317720	GATCTCCATCTAAAACAAGAACCAGTTAACACCCAAATGTGCACAGACAGAATCTCAGGC[A/C]TCTCCTGTCCCTGTCTATTGCCTTCCTATTGGCAAAGTCTCAGCTAATACTAATCACTTC
Hapmap48136-BTA-96744	Discovery	rs41663038	ss61568240	T/C	A/G	13	719908	UMD3.1	Hapmap48136-BTA-96744-0_T_R_1509285590	GAAAAAGGACATTGCCTGTATAAGGTAACTGCTCTCTTCAGTTTGACCCAGTTTTCTGGT[A/G]TGGGAAGACTGAGTCAGCATAATTTCTTTTATTCACTAGACAGAAACAGATAAGAATTAT
ARS-USMARC-Parent-DQ888312-rs29015945	Discovery	rs29015945	ss38332442	A/G	A/G	19	36437188	UMD3.1	ARS-USMARC-Parent-DQ888312-rs29015945-0_B_R_1511685970	AGGTTTAAGGGAATATTTGCACCTGTCTCTGGATCACAGAAGAGGCTGAGGGTGTGTGGC[A/G]TAGAGAATTGGCCCTGAGGCCTTTCTCAGAATTCCCTGTACAGTTATTCAAATACTCCTT
Hapmap39390-BTA-22146	Discovery	rs41630136	ss61528095	T/G	A/C	19	4509536	UMD3.1	Hapmap39390-BTA-22146-0_T_R_1511627958	GAAGGATTTCAGAGAGAGTTTTTAAAGGCAAATTTGTAGGGAGTGCTACAGAGTGTGTCA[A/C]TCTCTTCTAGTTTGTCGGTGCCGGGGTAACAGGGTGGTGCTCCAGGAATCTCAGTCATCT
ARS-BFGL-NGS-19437	Discovery	rs110023442	ss86302854	T/C	A/G	21	47400719	UMD3.1	ARS-BFGL-NGS-19437-0_T_R_1511645885	TTTGGATGCACAAACTGAATGGTGACATGGCACATCTAACCTTTCAGAAGATGATGGCAA[A/G]GGCCAGAGCAGAGCCCCAGAAATGAGATGAAAGGGAAGAGGAACATCTCTGTGGCTGTAA

SNP name	Group	rs	ss	Forward A/B alleles	Top A/B alleles	Chromosome	Position	Assembly	Illumina Probe ID	Genomic flanking sequence
Hapmap35472-SCAFFOLD35342_21388	Discovery	rs29017723	ss117973024	T/C	A/G	21	66107076	UMD3.1	Hapmap35472-SCAFFOLD35342_21388-0_B_F_1511627671	TGGGTGGGGTTTTGCTGTTGGTGCCGTTGGGGTTGCGTGCTTCCTGCTTTTGCTCTGCGC[A/G]CTGACTCTGCCTGGGACTGATGCTGGCAGACAGTCTGATGTGAGAATTCAGTGCGTCATT
ARS-BFGL-NGS-35219	Discovery	rs108960855	ss86324609	T/C	A/G	4	106885171	UMD3.1	ARS-BFGL-NGS-35219-0_T_R_1511675805	TGCCATGGAGAAGAGCACTACAGAACGTGAGTTTAGGCAATGTAAGGCCACTAGAAATGA[A/G]CCAAGTCATTCTAACAGGGGACAGAGGCTCTTACCTCTCTACCTGAGCAGATGGTGGCCC
ARS-USMARC-Parent-DQ485413-no-rs	Discovery	rs41590225	ss140469302	T/C	A/G	4	94176209	UMD3.1	ARS-USMARC-Parent-DQ485413-no-rs-0_B_F_1511686038	GCTAAGGGACAAGCTTGCCAAAGGYGAGAGAGAGACAAACCTCCAGACRGACTCACAAGT[A/G]GGAACTCTGGAGGTTTCCCTAGCACAGCCCAGGTTTCTCAGGTTCTGGCTCACTGGTGTG
BTA-82216-no-rs	Discovery	rs41590598	ss61492850	A/G	A/G	4	52308430	UMD3.1	BTA-82216-no-rs-0_T_F_1511543206	GTCTGGAACAAAATAAATAAGGACATTCATTTCTCCTAATTTATATTGATGTGGATGTTC[A/G]TTAATTTGAAATGATTTGTTAATTACACAAAGCTCTTAAACCCCTTTACTAAAAAAATCA
BTB-01902057	Discovery	rs43013883	ss64918503	T/C	A/G	4	6604523	UMD3.1	BTB-01902057-0_T_R_1511552598	CATTTCATTCTCCAAAAGAAGCAACCAGGCAGAGAGTCGATGATGCATACAAGCAGCTCA[A/G]ATTTAATCCTCAGGGGGATCTCAGTTATTTTAGCTGATACTTCACCTTCTTTTTGCAGTG
ARS-USMARC-Parent-AY849380-no-rs	Discovery	rs41255758	ss49846084	A/G	A/G	6	90562665	UMD3.1	ARS-USMARC-Parent-AY849380-no-rs-0_T_F_1511686037	CAATGAAACTTCAAAACAAATCTACTTCAGTGCCTCATGTACTGTGTGGGTCTGGTGTAG[A/G]GTTGTCAGATAAAATACAGGATGTCCAGTTATATTTGAATATTAAGTAAAACAATGAATA
Hapmap50460-BTA-75791	Discovery	rs41595940	ss61491244	T/C	A/G	6	8478503	UMD3.1	Hapmap50460-BTA-75791-0_B_F_1509303979	GTTAAAATGATCATATGATTTATCATCAATATTCAGATACCTTTGAGAGTAAAATGGGGC[A/G]CTATTAATACTTAAGCCAAGTAACAAGTATAATTGGGGTGAACTGGGAAAACTGGGACCT
ARS-BFGL-NGS-26056	Discovery	rs110616633	ss86285011	A/G	A/G	9	3651455	UMD3.1	ARS-BFGL-NGS-26056-0_T_F_1544346887	TATTCACACATGAAGCAAAGAAGACTGGGATCTGAGATCTGAACAAAATGCCCTCTGGCC[A/G]TAAAGCTTCACCTTTTATGAGCTGGAAAGGAAAAATGACTTTTCAACCTTTACAAATTGA
ARS-BFGL-NGS-3465	Discovery	rs109170761	ss86314662	A/G	A/G	9	87606681	UMD3.1	ARS-BFGL-NGS-3465-0_B_R_1511665702	AACTCAAGCCCAGAGAGTCCAGAAGCTTCATAGTTAGAAAAATCTCTGTCTAGATGAGAA[A/G]GGCCACCATTTGCCATAGTTGTGCCAGATCTATTTCTGAAATTAACTCTTGTTTTCCTAG
ARS-USMARC-Parent-DQ846689-rs29011985	Discovery	rs29011985	ss38323070	A/G	A/G	9	45729853	UMD3.1	ARS-USMARC-Parent-DQ846689-rs29011985-0_B_R_1511686290	GTTAATCAACTATATKTGTACATATATAGAGAGAGCTCCCTCKGAGAGCTCCCTTMCACC[A/G]CGCTCCCTATTCTTTTGTTTTTAAGTGAATAATAAGGCTCTGTCTCTACTTTAGAAACTT
ARS-BFGL-NGS-35455	Discovery	rs110493467	ss86298634	A/G	A/G	10	10795992	UMD3.1	ARS-BFGL-NGS-35455-0_B_R_1511674364	ACTAATTTCAACACTGTTGTGTCTCAAGGAACAGGGAGGCCTCAGGCAAAGGGCTGGTTG[A/G]TGAAGCAGTCAGAACATACACATATTTATCAATTGAGTTTGCTGTCTTACTTCTCTAAAG
Hapmap25493-BTA-109827	Discovery	rs43711263	ss61498362	T/C	A/G	10	4383927	UMD3.1	Hapmap25493-BTA-109827-0_B_F_1511587427	TAAAAGGAAGTTGGCATAAATTTGGTTGAGCCTGTCTGCTGTACCTGCTACAGAATGCCC[A/G]TTTGGCTACTTAACATCCATACCTTGCCTTCTTTCCATTCTTAAACCTCCAGACCAGGAC

SNP name	Group	rs	ss	Forward A/B alleles	Top A/B alleles	Chromosome	Position	Assembly	Illumina Probe ID	Genomic flanking sequence
ARS-USMARC-Parent-DQ832700-rs29012872	Discovery	rs29012872	ss38323971	A/C	A/C	12	80629629	UMD3.1	ARS-USMARC-Parent-DQ832700-rs29012872-0_B_R_1511686106	CCTTCAAAGTTCCGTTTYCCCCACAGCCCTTCCCAGGCCAAACCACCCCAYTTGATKGCT[A/C]TTTCTGTAGCTTCTAATCCCTTAAGCACCACTTACAGATGGACTCGCTTGCACTTTTAAT
BTA-23867-no-rs	Discovery	rs41630989	ss61528978	A/G	A/G	12	50865733	UMD3.1	BTA-23867-no-rs-0_T_F_1511622594	AGGACTGTGCTATGTGTCTAAGAAGTGTGACAGTTGACCAGGGCCTAAGGGGTTTATGTT[A/G]TAATTGGACGAGAAAAGACACAAAGGAAAAACATTAAATAATTAAAGACAGCGAATAGTA
Hapmap48641-BTA-119400	Discovery	rs41617704	ss61522219	T/C	A/G	12	10996119	UMD3.1	Hapmap48641-BTA-119400-0_T_R_1511577776	TAATTAAAAGAGTTTGAAAAAAATCTGGACAAGATTTACTGCTACCAAAAGAAACCTTCC[A/G]AATGCACTCTCACAATCTCTTGATTGATATTCTTGAGATAAAACATTACCCCCAGAGAGG
ARS-BFGL-NGS-103346	Discovery	rs110365259	ss86334026	A/G	A/G	14	68578968	UMD3.1	ARS-BFGL-NGS-103346-0_B_R_1511670578	ACACAGGCAGGGTATGACTAGAAAATGGCGGCTATACCGTGTGTGTATGTGTGTGTTTGA[A/G]GGCCATCGCCTCTCACAATCATCCTGTACATGATAGAATCACAGGAGTTAGTAGTGAACT
ARS-BFGL-NGS-12610	Discovery	rs108991969	ss86325725	T/C	A/G	15	27822630	UMD3.1	ARS-BFGL-NGS-12610-0_B_F_1544345676	TGGAGGAGGCAGGGCAGGGTATGTGGTGTCCTTAGGATGGAGAAAGGCTGCTAAAGGGCC[A/G]TTTTACCTCTGGTAGGTAGTGGGGAGCAGGTAGTAAGAACTCTGTGAGAGGACTTCCCTC
BTB-01912619	Discovery	rs43020250	ss64929001	A/G	A/G	15	20712027	UMD3.1	BTB-01912619-0_B_R_1511552693	CTTATACATAAAGTTCAATTTTTTTTATATGGTATAAAATGCCCTTTAAGATCTGGCTCA[A/G]TGTCTTCTTATCAACCTCATTTTTCACTTCCCATTTTTTTCAGTTCTGCACACAGTCCCA
Hapmap32097-BTA-150519	Discovery	rs109737932	ss117971819	A/G	A/G	15	56302387	UMD3.1	Hapmap32097-BTA-150519-0_B_R_1509306355	AGAAACAGGTGAGCAGAAACACTATCTAGAGATTTAACCAATGAAGTGATACGACCTTAC[A/G]TAAATCCACTAGTTGCTTCTCCCAAAGTCACATCATTAAACGCTGGAAGGAATCAGAAGT
ARS-USMARC-Parent-DQ846695-no-rs	Discovery	rs41825023	ss117972104	T/C	A/G	16	80747557	UMD3.1	ARS-USMARC-Parent-DQ846695-no-rs-0_B_F_1544362788	ATGACATATCCATTAGGAACTGATAGTCTTGTAAAATCAGTTTTCTGGTCAGCRCTGTGC[A/G]TGAGCACATAGCAGAAAGCCCCATGGGTCTGTTTGTATTTGGATTTACTAAGAACAAGCA
BTB-00689316	Discovery	rs41853796	ss62371709	T/C	A/G	17	71925055	UMD3.1	BTB-00689316-0_B_F_1544349116	CGCCACCGCCACCTCTTCCCTGCCCTGGCGCGTGTCTGGGCTCTCATACTCTGGGGACGG[A/G]GGCTTCATCAACCGCACATCGTCGCTGCCTTTCTCCACCCTAGGGAGAACCCAGTGTTTG
BTB-01715543	Discovery	rs42825187	ss64733230	A/G	A/G	17	45185286	UMD3.1	BTB-01715543-0_T_F_1511528916	ACTGGTCCCTGGGGACAAGCCACTCTGAACTCTTGAGATAAAAAGGACACACAAACTGCT[A/G]TGCAGACAAAATGTGCTGTAACTCATGTGTTCCATGATACTTTAACATGATTAGCTCACT
ARS-BFGL-NGS-37708	Discovery	rs41885368	ss86298769	A/G	A/G	18	49928003	UMD3.1	ARS-BFGL-NGS-37708-0_T_F_1511681943	CACTTAATAACTGTTGGATGGATGCTTGGGATCGTGTGTGTGGAAGGTATGAGTGTAATA[A/G]CATGTGCCAGGCCTCAGGCTCCTGAGTTTTCTGAGGCCGTTGCTCTCTAGGCTGGGGTGG
Hapmap47949-BTA-43407	Discovery	rs41581677	ss61482794	A/G	A/G	18	44524702	UMD3.1	Hapmap47949-BTA-43407-1_T_F_2022483083	CCACTGTCCTCCGGCCTCTGGGCTGAGTGCCACACGTTGGTGCTCTAGCTTCTTAAGTTC[A/G]TGACATGTCTCAGGAGAGAAGAGTCTTGCCCACTGCCCGGTGCCCCAGTGGTGCCGAGTC

SNP name	Group	rs	ss	Forward A/B alleles	Top A/B alleles	Chromosome	Position	Assembly	Illumina Probe ID	Genomic flanking sequence
ARS-USMARC-Parent-DQ990835-rs29012811	Discovery	rs29012811	ss38323909	G/C	C/G	20	36570529	UMD3.1	ARS-USMARC-Parent-DQ990835-rs29012811-0_B_F_1511686376	AAGCASRCCAATGACTCCTTGCCCCATCACATAAAGTCATTTCTTCCCAGCTGCCAGGCT[C/G]CTTCTGAAAGAGCTAGAGCCCTGCCAGTTACAGTAGCTGGTATAAAAGCTAATCTTATAA
BTB-00041743	Discovery	rs43252624	ss65165964	A/G	A/G	20	46735404	UMD3.1	BTB-00041743-0_T_F_1511575806	CATTGTTTCAAATATTATGTGGGTATGTTGGGATCTTGTTTGCAGAGTCTCAGTAGGATT[A/G]AAATAATAGCCCTAGAACATTGTCAGGATGATGAAAAAGTCTTTTTTTTTTTTTAACACA
BTB-01565998	Discovery	rs42680109	ss64530672	A/G	A/G	20	37915840	UMD3.1	BTB-01565998-0_T_F_1511532864	CTTGGCACAGAGTTAGAGCTCATGACATGTCAATTGTGGGGAAATGAGACAGGGAAGGAC[A/G]AGAGGGACTGGGAACAGTCTCCTCAAAGGATGGTCTGGGCTGGAGCGTTTGTCCCCAAAC
Hapmap32669-BTA-50759	Discovery	rs41606327	ss61502418	A/G	A/G	20	50999239	UMD3.1	Hapmap32669-BTA-50759-0_T_F_1544361425	TTAGTATTATATTGTAAACCTATCAGAACTTCTATAGAACACTCAGAAACTCCACAATGT[A/G]CATTAGAGACTTGAGTAACATTATGAATTAATACATCATCTCTCTCCAATCCTGCATGAA
Hapmap40826-BTA-87264	Discovery	rs41594336	ss61494128	A/G	A/G	20	496304	UMD3.1	Hapmap40826-BTA-87264-v2-1_B_R_1924255188	CCACTGTATATCATAGAAAATCATTAATAATAAATAAAATAGTCTCCCACCCTTGTGAAA[A/G]AGTCCCAGTTGTCTCCCCAGGGGAGTAAACTAAACGCCTTTGATTGAAGGGGACCGTTGA
ARS-BFGL-NGS-119059	Discovery	rs110019581	ss86338680	A/G	A/G	22	58748602	UMD3.1	ARS-BFGL-NGS-119059-0_B_R_1511662796	GCACGGGCCAGGCCCTGCGCCAGGAGCCTTGAGTGGCCTGTCTCGCAGCGACTTTACTAA[A/G]TCAAGCCCTGCCCTTAACCCAAAGTAAACCAAGACCCCAGAGGTGACTTGCTTGAGCCAC
ARS-BFGL-NGS-31568	Discovery	rs109579577	ss86316172	A/G	A/G	23	51795496	UMD3.1	ARS-BFGL-NGS-31568-0_T_F_1511665627	AAAGTTTACCTATTCCTTCTCAAACCCTCAGCACCTTCCATTCACCCTGACGCGTGGGAC[A/G]TGCCCCGTGCTGGCCTGGCGACGGTCTGTCCCGGCTTCCTCAACCCACATTAGGCATTTG
Hapmap23842-BTA-56935	Discovery	rs41600226	ss61502810	T/G	A/C	23	47219946	UMD3.1	Hapmap23842-BTA-56935-0_B_F_1511565757	GCCGTACCCCCCGGCCTGGCACGGTGGACCCCGCACCCGGTTTGCTCTCTGAGGTCGATG[A/C]GGAATTCTGAATGAAAGGTACTGTTGACAGTAAATGCTGTCACTGAACGCACACGAGGGG
ARS-BFGL-NGS-2592	Discovery	rs109874767	ss86335484	T/C	A/G	24	12775555	UMD3.1	ARS-BFGL-NGS-2592-0_B_F_1511660374	GGAACAGACCCCTTCATCTTGGACACCAAGCATGGAGGGTATCAGGCCTGTGGAAGGGGA[A/G]TAATCTCCTCTACTCCAGAGTTTGAGTGAAGCTGGGACCCCAAGAGTTCTAAGCAGTGAG
ARS-BFGL-NGS-85334	Discovery	rs109014300	ss86315535	A/G	A/G	24	54964769	UMD3.1	ARS-BFGL-NGS-85334-0_T_F_1511692375	TCAATCCTTTTGCCAAAAAATGCCTCCTCATGTCACTTTTCTTTCCAGACAAATACCCGA[A/G]GAGGGGTGAAGGGCCCCTGTTCTGTGCGTAGGTGAAGGGAGCAGTGACTGCGACTCCCCA
ARS-BFGL-NGS-16739	Discovery	rs109106222	ss86304574	T/C	A/G	25	20723432	UMD3.1	ARS-BFGL-NGS-16739-0_T_R_1511640115	TTTTCTCATGCAGTTGTGGTCAGATGTCAGCTGGGGCCATTACCATCTGAGGGTTCTCCC[A/G]GGGTGCATGTCCAAGAGGGGTCACTCACAATGCTGGAAGGTGATGCTGGCTGTTGGCCAT
ARS-USMARC-Parent-AY942198-rs29003010	Discovery	rs29003010	ss38340199	T/C	A/G	25	40851475	UMD3.1	ARS-USMARC-Parent-AY942198-rs29003010-0_B_F_1511686256	TTTCCATCTTCACTCAGTGGRGCCAGYGCCCTGGTGATGAGCCTGTGTCCTCAGCCTTGC[A/G]GTCGCCTTCACTTTGAGGGAAAGTGAGTTGGGGGAGGGTGGAGGGAATCCTCTCCCCACC

SNP name	Group	rs	ss	Forward A/B alleles	Top A/B alleles	Chromosome	Position	Assembly	Illumina Probe ID	Genomic flanking sequence
ARS-BFGL-NGS-35579	Discovery	rs110035524	ss86320766	T/G	A/C	26	26058953	UMD3.1	ARS-BFGL-NGS-35579-F2BT-1_T_R_1923527441	GTGTCCAGTAAACTTAGAGCCTGCAGGGCACTGGGATCAGAAGGGGCCAAGTCAGTCTTT[A/C]AGACCAGGGTGACTCAGGTGGGGAGTCTCCCAAGGGCATCTGGCTATGAGTAAGGTCCTC
ARS-BFGL-NGS-43058	Discovery	rs110952163	ss86300608	T/C	A/G	26	37466186	UMD3.1	ARS-BFGL-NGS-43058-0_T_R_1511687873	TCTTTCTTATCGCGGCGCATAATTAGAATGGCAGGGAGGAACCAGAGCTTTAATGAATGA[A/G]CAGCATGTGGCCGGGAGCACTCGCCTCCCACCCGGGTCTGGGCCTCGCCAGGAGAGCAGG
Hapmap42117-BTA-15977	Discovery	rs41624790	ss61524962	A/G	A/G	27	44629833	UMD3.1	Hapmap42117-BTA-15977-0_T_F_1509307662	AGACGTAGGCAAAGACAAAATTGAGTTATATCAAGGTGCTGTGTGTCACTGTGCTAGCCA[A/G]GGTACCTAATGTAATTTGTTTCTTATAGTGTTTATGAAATGTTCCATCTGGCACGATATG
Hapmap43150-BTA-110538	Discovery	rs41614882	ss61517404	A/G	A/G	28	6732947	UMD3.1	Hapmap43150-BTA-110538-0_B_R_1509293063	GTGGCTTAAGAAGCATAGAAGGAAGATACTATCAGAGACATATGGCAACATTTAATTGTA[A/G]GTCTCCTGATGGAAACATTGACCCTACAGCATAAAAGATAATATCCACTTCAAGGTGAAC
ARS-BFGL-NGS-56314	Discovery	rs109781094	ss86287263	T/C	A/G	29	4944723	UMD3.1	ARS-BFGL-NGS-56314-0_B_F_1511646008	AATACTTAGCCTGTTCACAGAAAGACCCCAGCAATGAGATATACAGCCCCTTAGGTGAGG[A/G]AATTAGGGAGATGGAGGAGCTTGGCCCTTTATCAAGCACATAGGTATTCAGCACAAAGTT
ARS-BFGL-NGS-90760	Discovery	rs110854486	ss86321148	T/C	A/G	29	40153672	UMD3.1	ARS-BFGL-NGS-90760-0_T_R_1511690469	GGACGGAAGAAGAGGGAGAATAAGAGAGAAAAAAAGGGAGAGGCCGAGCGATTGAACTGA[A/G]CTGAACTGAATGCCATCACGAAGACCCTACTATCATAACCCCATGTCAACTTAATTACCT
ARS-BFGL-NGS-104897	Discovery	rs43257282	ss86335115	A/C	A/C	1	112863292	UMD3.1	ARS-BFGL-NGS-104897-0_T_F_1544344725	GGCCTCCCTGTCACTAACCATTTATTAGCCATGAAGACGCAAAAAAGTCAGTTGGATGTC[A/C]CCAGATGAGGAGAGGCCTGTCTCACAGAGCCCTGCTGCCCTCAGTGATGGAGGAACCGAC
ARS-BFGL-NGS-113570	Discovery	rs109360740	ss86340246	A/G	A/G	1	9601018	UMD3.1	ARS-BFGL-NGS-113570-v2-1_T_F_1924245876	TCTCAACCCATCTTCCTTTCTAAAAGTTCATGCTGATTCCTCTTTGTGGCCCAGAAGTCA[A/G]TCTTGAGTTGCATGTTTCTCTCATCTCTTTTTACCTTCTCTAAGACAGAGGGCTGGAGAA
ARS-BFGL-NGS-117553	Discovery	rs41994531	ss86341561	A/G	A/G	1	131326810	UMD3.1	ARS-BFGL-NGS-117553-0_T_F_1511655583	GGCCCAGAGGGCACAGGGGATTCTTCACCACCAGCTGAACTTACAGCACACTGTGGGTGC[A/G]GTGAGGCACCTCTCAGCTGGGCCCCACACCCAATCAGTATTCATGACCACCCTCGATCCC
ARS-BFGL-NGS-118073	Discovery	rs43266192	ss86341223	T/C	A/G	1	128471733	UMD3.1	ARS-BFGL-NGS-118073-0_B_F_1511652684	TGAAGCAATACCTTTAACATTCAGAATATTTTGCAGAATATTCAAAACGTTCTTTTAACA[A/G]TTTACCTCAAGATCAAACAGGGCCATGACAGGGATGTGTTAAAAAACACATGCCAATTTT
ARS-BFGL-NGS-118398	Discovery	rs41584442	ss86341785	T/C	A/G	1	9019409	UMD3.1	ARS-BFGL-NGS-118398-0_T_R_1511653453	GGCTACTTTCTCTCTCTGGAAATAAACACTCACCTGGCCCAGGAGCCCTGCTCATGTTCA[A/G]TCATGAGCCCTGTACACTAGAAAGTCTTCCTTTAACAATGGCTCGAGTCTTGGCCATTCT
ARS-BFGL-NGS-119431	Discovery	rs110348226	ss86338192	T/C	A/G	1	78986953	UMD3.1	ARS-BFGL-NGS-119431-v2-1_B_F_1924246723	GCTGTGATTCCTCTGCCTGTATTTAGTTCTCGGGGCCCATCTTGCTCCTCCTCAGTATGA[A/G]ACCCTGCCCTTGTAAAATCTTGGAATGGAATCCTACCATCTGGCAGATATCCTTGACTTC

SNP name	Group	rs	ss	Forward A/B alleles	Top A/B alleles	Chromosome	Position	Assembly	Illumina Probe ID	Genomic flanking sequence
ARS-BFGL-NGS-19741	Discovery	rs109629400	ss86316456	A/G	A/G	1	80548510	UMD3.1	ARS-BFGL-NGS-19741-v2-1_B_R_1924247358	AAACAAGAAAACTCCCCTGCCCAACGTGGAGGAGGAGTTGATGATGGAAGTTCGATGTCT[A/G]TTCCAAAATGAGGAAGAAGTAGGCCTTTCCCCCTCTCCACTTTTCCTTTGATTATAAAAC
ARS-BFGL-NGS-32083	Discovery	rs42356323	ss86307480	T/C	A/G	1	109099488	UMD3.1	ARS-BFGL-NGS-32083-0_T_R_1511666321	TGAAGTAGACCAGAATTCCAGGCAAATGGACGGAGCAGTTAGGACCAGCATGAAAGAGAA[A/G]CTTGCCCCGCAGGCCTGTGTGTTTTGAGAGAAGACTCTGAATCCCATCCCTCGAATTCCT
ARS-BFGL-NGS-40229	Discovery	rs109327270	ss86288046	A/G	A/G	1	62184184	UMD3.1	ARS-BFGL-NGS-40229-0_T_F_1511685113	CATACCTGGAAAGGGATTTAGGGATTATTCCTGGTTTGCTGAAGGCCCAGAGAATGTTCC[A/G]TGATACACTCATACATTTGCATTTGGAAAATAACATGATTATGACCGAGGTCCTTGCACA
ARS-BFGL-NGS-4047	Discovery	rs110710269	ss86289851	T/C	A/G	1	84614199	UMD3.1	ARS-BFGL-NGS-4047-0_B_F_1511689272	TGTCTGAATTTTGAAGACATCAGACACAGCTTTCTCCTTGAGGATGAGGGCCAGAGCTGC[A/G]TGACATAAAAACTCCTTGGCTGTGGTCTTCCGGTCGGGCAACAGTTCTTTGCGGTGTTGA
ARS-BFGL-NGS-67754	Discovery	rs41583110	ss86297683	T/C	A/G	1	148816004	UMD3.1	ARS-BFGL-NGS-67754-0_B_F_1511656742	CAGTACAACTAGAGCATGAGACTCAAGAGGAGGAAGGCAGGAGACACAGAGATCCAGTGA[A/G]CGGGGCCTCTGTGATGAGTGGCTGCAGAATTTTTTCTGGCATGGAAATCCATTTGGGCCT
ARS-BFGL-NGS-76111	Discovery	rs110775913	ss86306448	A/G	A/G	1	103219606	UMD3.1	ARS-BFGL-NGS-76111-0_T_F_1511672473	TTAAAAGGTTAGATAAAAAGGATCAGGAATGTGAGTCATAGATTTAGGCCTGGTTCACCA[A/G]TTCACTGCTTGGTTTGAGTCAATTTCACATAATTAACTTTTTGGAAAAATAAGCTGGGAA
BTA-122684-NO-RS	Discovery	rs41619822	ss61524374	A/G	A/G	1	139231307	UMD3.1	BTA-122684-no-rs-0_T_F_1511617076	GCTGAGTTCAGCTGAGAAAGGATACCAAGCAGCATCTTCTCTTCTCTGATCTCCATGAGA[A/G]AAGGGCCCACGCAGATGCGATCTGGTTCATTAAGGTCACCACTGCTTCTTTCCCTCCCCC
BTA-23353-NO-RS	Discovery	rs41628641	ss61528709	A/C	A/C	1	60787763	UMD3.1	BTA-23353-no-rs-0_B_R_1511616787	ATTATAGGCCTTTTCCATTGCTTTTGAAAAAAAAAAGTCTCTCTTTTTTTTTTATGTTCTA[A/C]AATAAAATGCCTGTTTACAATTTAAAACAAAAAATTGGGGGGAGCAATAAGACTGGAACA
BTA-35637-NO-RS	Discovery	rs41580510	ss61480774	T/C	A/G	1	5610335	UMD3.1	BTA-35637-no-rs-0_T_R_1511540926	GAGGAAGCTATCTCAAAGGGAGACCTGAAGCTTGAATGCTACATTCTTCCTCTTGCAAAT[A/G]TTTCAGTTCAGTTCAGTTCAGTTGTGTCCAACTCTTTGGGACCCCATGGACTGCAGCACT
BTA-46150-NO-RS	Discovery	rs41639071	ss61540930	T/C	A/G	1	102792723	UMD3.1	BTA-46150-no-rs-0_B_F_1511533155	TTTTAAAATATCAATAAATATCTAGTCATCAATAAAATATGAAAGGCATAGAAAATTTCA[A/G]AGTGACATCAGTAAAATAATGGAATAGGAGGTTCTAGTCCTCAACTCTCCACAAAAATAC
BTA-49375-NO-RS	Discovery	rs41578204	ss61484351	T/C	A/G	1	121363361	UMD3.1	BTA-49375-no-rs-0_B_F_1511540531	ATATTCTTAGAATACAAATAATGAATTAATAATATGATAGAATTACATGCATTTTTAAAA[A/G]TCCCATATTCATATGACATAGAAATGATCACAATTAAAGTTATTAACTGGGAAATCCTGT
BTB-00012128	Discovery	rs43223035	ss65136409	A/C	A/C	1	28599381	UMD3.1	BTB-00012128-0_T_F_1544347969	CTTCAAAAAAAAATGATAATAGATTGATTTATGCCACACATTAATATCAGGAGTGCCACA[A/C]AAATTTGCACAAAGTTCTCATTTATAAAACTGGAGTTCTTTGTACTGCTTTACATTAAAA

SNP name	Group	rs	ss	Forward A/B alleles	Top A/B alleles	Chromosome	Position	Assembly	Illumina Probe ID	Genomic flanking sequence
BTB-00052125	Discovery	rs43259942	ss65176334	T/C	A/G	1	120479376	UMD3.1	BTB-00052125-0_T_R_1544348037	TTTCTTAGAAGTTGCATGTCACCATAAGTAAGTTATCAGTAAAACGGAGCCACCTACACT[A/G]CTAGTAATTTACTTAATTTATTAAAAAATGCATAAGTTCCTAAAATTTATGTATAAAACT
BTB-00061242	Discovery	rs43268844	ss65185443	A/G	A/G	1	133323967	UMD3.1	BTB-00061242-0_T_F_1544348093	GAGTCCTCAAGTCTTTTCAAGCTCTCTATACAGAACCAAGATCACAGATTACTCTCTACA[A/G]CAATTTCTCCTTCTTTAATTTCCCCAAGAGTTTGTTGTTTTCCCCACTGACCTGTTTAAC
BTB-00076466	Discovery	rs43282562	ss65200647	A/G	A/G	1	158161585	UMD3.1	BTB-00076466-0_T_F_1511575332	ACTTAAAAAAGGTAAAAAAAGAGTAGAAGGCCATTTCAGGGTAGTAAAGCATTATGAGGA[A/G]AGCCATCATAACTGAAAGTGATGGTAAAATTAATGACGTGATGTGTTTTCAGGCAAAATA
BTB-00468476	Discovery	rs43670957	ss65591615	A/C	A/C	1	46675519	UMD3.1	BTB-00468476-0_B_R_1511574513	AAGTTTATTTAAAGATGGTATGTGTGTGTTTAGTCTCCTTCTTTAAATTATAAGCTCATT[A/C]ATGGCAGATGCCACGTGTGTATTTCCATGGATGTCCATCTCATCCAGCCCAGTAACAGCA
BTB-01077379	Discovery	rs42234990	ss63448381	T/C	A/G	1	49279500	UMD3.1	BTB-01077379-0_T_R_1511598230	CATTCCCTTTTATGTACCAACCAACATCATATATCTGGCTTTCTATCTTTCAGCTTATTT[A/G]TAGTTAAGATCAAGAGGCATATGTAGTATTGAGTTTTGCTTGCCTGTTTCCAATCAATTT
BTB-01086841	Discovery	rs42243124	ss63476669	T/C	A/G	1	94882093	UMD3.1	BTB-01086841-0_T_R_1511598280	GTAGACAGGGAAAGCACAAGAAAACAGACAGTAAATTAATTATAAGGTCATGTCAACAGA[A/G]AAGTAATGCACAAGACAAACAGCTCTTTATGTAAATATTAAGTCAGATTTATTTCTTATC
BTB-01146838	Discovery	rs42303280	ss63656334	T/C	A/G	1	48802718	UMD3.1	BTB-01146838-0_B_F_1511598619	GTGAGAATAGTATCTTGAAACTAAGCCATGCAGTGAAGAAAAAATGTGAATATATATACC[A/G]TGAGAAGAACTTGATAAGCTTGGACAGATGCTTGAATGGCAATCATTTGGGAAAGATATT
BTB-01287574	Discovery	rs42409034	ss63973210	T/C	A/G	1	133671941	UMD3.1	BTB-01287574-0_T_R_1544355675	TAGCCACACCTCCCAGAATTATCCCAGCAGCTGGTCACTTCTGATGCACACTTCCACAAA[A/G]GACATTCAAACACAGACAGGCAGGTCTGGCTCAGCCTCTTGTGGAGATCACAGCTCCTTT
BTB-01728863	Discovery	rs42845302	ss64746472	T/C	A/G	1	5179453	UMD3.1	BTB-01728863-0_T_R_1544352987	AGTATTTCATATAGCATCTTTTAAGTTCAAGATCTTAAATCTACTTCTATATCCTCTCTC[A/G]TATTTAATATAATGTCTTCATCATTCTTATCTCTATTTTCCCACTCATATTCTGCATATT
BTB-02006134	Discovery	rs43113585	ss65021416	A/G	A/G	1	61357379	UMD3.1	BTB-02006134-0_B_R_1511552111	ACCCTACAAATGAAACCCTTAATGAAGCAACAAAATTATCTCATTTTCCACTAGAAAGAA[A/G]GACACTTGGTCTGGAAATTCATCTGGTTCATTCTCAGCATTACAGCGTGCCATTAGCAAA
HAPMAP38147-BTA-25404	Discovery	rs41574703	ss61478189	A/C	A/C	1	57660748	UMD3.1	Hapmap38147-BTA-25404-0_T_F_1511628450	CAGGGCAGGGGGGAAGTTGCACAGTGACTGGAGAGATAATTTGGTGGTTATCACCCCAAT[A/C]TGAGTGCCTCAATGCATGGTACCACTGGAATTAGCTGTCCTTCCTAGTAAATATTAAGTA
HAPMAP39375-BTA-112108	Discovery	rs41612214	ss61518249	A/C	A/C	1	78449548	UMD3.1	Hapmap39375-BTA-112108-0_B_R_1509317979	TCCTTCTATAGGAATTCAAGGCTGGGTGTCTCCTGTGTCATCATTCAGGAACCTCTGCTT[A/C]TATCTTGTACCTCTCCCAGTCTCTGTGGTCTCAAAGTCCTCTCACTTCAGCCAGAATAGA

SNP name	Group	rs	ss	Forward A/B alleles	Top A/B alleles	Chromosome	Position	Assembly	Illumina Probe ID	Genomic flanking sequence
HAPMAP39712-BTA-109811	Discovery	rs110858680	ss61517016	T/G	A/C	1	101583260	UMD3.1	Hapmap39712-BTA-109811-0_B_F_1511627845	TAAATTAGGATACAATGTGAATAGCTTTATCTGTTTAGGCTACAGGGTTGTCAGACTTYA[A/C]GTTGTTACAAGTATCACTGGTGGGAAATGATTCAGCATGGAATCCATGGCCAGACTCAGT
HAPMAP43297-BTA-57357	Discovery	rs41583126	ss117966440	T/C	A/G	1	152189521	UMD3.1	Hapmap43297-BTA-57357-0_T_R_1509273582	ACATGGCAACATCATTGATTTCATGATTGTGACTGGTTACTTGAGTATATTTGAGCACCC[A/G]TTTTTCTTTGAATGGGAATCATAACTCTTATAGAGTTACGACTGAGGACAGGAGGAGAAG
HAPMAP44395-BTA-64864	Discovery	rs41648924	ss61551244	A/G	A/G	1	153919758	UMD3.1	Hapmap44395-BTA-64864-0_B_R_1509275729	TTCATTGGTGCAAATCTTTGGGAGACTTTAAAAATGAAGATTAATGTTAAAATGGTAAGA[A/G]GAAAGGAAGAAGAAAACCTTAAAGACTGAATGAACAAACAAGCTTAGTAGAAATAGAAAA
HAPMAP48717-BTA-31633	Discovery	rs41630790	ss61533227	A/G	A/G	1	59971879	UMD3.1	Hapmap48717-BTA-31633-0_T_F_1511577672	ATGGAGACGTTTTCCATCCATATGGAGGATATCTGTAAAGACCAGAAATGAGAGTGAGGT[A/G]TGTGCTGAAAGTATGAAAAGAAGTTCAGTATGATTGGAGCATGGGCTTCCCTTGTGGCTC
HAPMAP49061-BTA-122268	Discovery	rs41624979	ss61524032	A/G	A/G	1	63742577	UMD3.1	Hapmap49061-BTA-122268-0_B_R_1511601511	AACCCAGGAGCCAGCAGGCTGAGCACCAACAGTGGATCTGGAATCACTGGGTTTGGAGAC[A/G]TCTTGGTAAACAGTGTATTCTGTGACTTTTTTAATACAGACCAGCTACAGCATGTGGTAA
HAPMAP50048-BTA-59263	Discovery	rs41586446	ss61486868	A/G	A/G	1	27465349	UMD3.1	Hapmap50048-BTA-59263-0_T_F_1509284828	TAAATCTTTGATAATAAAAGAACAAACCATCAAAATGACAGGGATGTTTCTGCATTAAAA[A/G]ATGTGATATCCCTTAGTGGTTCAGACAGTAAAGAATCTGCATGCAATGCGGCAGACCCAG
HAPMAP52559-RS29015773	Discovery	rs29015773	ss38332264	T/G	A/C	1	8998063	UMD3.1	Hapmap52559-rs29015773-0_T_R_1511617980	TTCTCACTTGAAAAGAATTTTGTGAGTCTCATTCAGAAAGTCACGTTCCAAAAGCAAATG[A/C]GAATGCAGATTTTATCTTAAAATTTGGTTAAGTAGGAATGAAAGTTAGAAACAGGAGTTA
HAPMAP57299-SS46527085	Discovery	rs41255628	ss46527085	T/C	A/G	1	145059132	UMD3.1	Hapmap57299-ss46527085-0_B_F_1511542773	GTCCGTCCTGGGACTTCCCCAACCCCTATCGTTTCCCCTGCATCTCGGGGCCCAGGATGC[A/G]GTCTGACCTGACCCACACCAAATAGCATTGAGCTGTAAACCTTTTTTTATTATTGGATTT
ARS-BFGL-BAC-29664	Discovery	rs110341860	ss105257401	T/C	A/G	2	30635269	UMD3.1	ARS-BFGL-BAC-29664-0_B_F_1544343794	TTTGTGTAGTTATTCTTAACTCTTTGTAGCATGCTTTAACTCAAGTTGTAAGCAAGTTTC[A/G]TATACCAATTAGGCTTTGTGCCAGCTAAGTTCAACTGAAACCAGACCTTGAATCCCTAAA
ARS-BFGL-BAC-30348	Discovery	rs110419748	ss105258160	A/G	A/G	2	22151093	UMD3.1	ARS-BFGL-BAC-30348-0_T_F_1511663383	AATAATCCAGGGTTTCCCAGTTACGAGAACTTTGCTTATAAAAATGCCTTAGGACCTCAT[A/G]TGTGGGCAACAATCTGAGTTAACAATCACTTCTAAGTGCCTGAGAATTCATGAGACTCAA
ARS-BFGL-BAC-32404	Discovery	rs109320395	ss105260440	T/C	A/G	2	13343685	UMD3.1	ARS-BFGL-BAC-32404-0_B_F_1511663544	TGCAGGTGCTTGGCAATAACCCTCAGGACTAAAATTCCCTTTAACAGAGATCAATACTTT[A/G]GTAACTTGCAGAATCCTGAACTTGATTTTATGCCACTGGCTTCTCCTTACCCAGCACTGT
ARS-BFGL-NGS-116761	Discovery	rs110011842	ss86339699	T/C	A/G	2	136483623	UMD3.1	ARS-BFGL-NGS-116761-0_T_R_1511655013	GAAGCGGAGGACGTCTGCCTCCAGCCGCTGCTCCAGGTCCTGCAGGAACCTGAAAGGGCA[A/G]CCAGGGGTCAGGGCTGGGGCCAGGAGGAGATCCCAGAGGCGGGAGCCCAGCCAGCTGCAG

SNP name	Group	rs	ss	Forward A/B alleles	Top A/B alleles	Chromosome	Position	Assembly	Illumina Probe ID	Genomic flanking sequence
ARS-BFGL-NGS-118138	Discovery	rs42457132	ss86336697	A/G	A/G	2	67292723	UMD3.1	ARS-BFGL-NGS-118138-0_T_F_1511653365	ACTGAGCTTCGGTCTAACACCATGTAGAAAATGGGAGATTGACTCTATTGCTCAATTCCA[A/G]ATTTCATGGTAAAACAATGAGGCCCAGTCTGAGCCCACTCATTCTTATTGATTGCAGAAG
ARS-BFGL-NGS-118876	Discovery	rs109264826	ss86339741	T/C	A/G	2	66585600	UMD3.1	ARS-BFGL-NGS-118876-0_T_R_1511655277	GAGCCTGAGGGATGGTACTCTGTGAGGATGATGTTATCGTTCTCGCAGTAGCCCAGCAGC[A/G]TGATCACGTGCTTGTTCTTCGGGGCCTGCAGCATTCGCAGCCTGTGCAGGAAGTCGTCTC
ARS-BFGL-NGS-15250	Discovery	rs109386162	ss86326904	A/G	A/G	2	89845085	UMD3.1	ARS-BFGL-NGS-15250-0_B_R_1511641324	GGGCAGGTAGGTGCTGCCCCACCTGGATGGATGCCTCTTTTTGAGAGTCATTGTGGGGTC[A/G]GTAAAGGCCTTCTGAAAAGCACATAATATCAGAGCTTGGCATTTTCCCTCTTCAGATTGA
ARS-BFGL-NGS-15508	Discovery	rs110868968	ss86328344	A/G	A/G	2	119595498	UMD3.1	ARS-BFGL-NGS-15508-0_B_R_1511639918	AGGGATCGCAGCATTAGGGAAGAAAGAGCAACATTACCTCCTTTGGGCCAGGGGGCTTGG[A/G]GATCCTTCTGTGCCAGGGGTGCAGGAAGAGCTGGATACAAAACTGGAACTCTGTTTCCAA
ARS-BFGL-NGS-33709	Discovery	rs109419732	ss86315136	A/G	A/G	2	130187033	UMD3.1	ARS-BFGL-NGS-33709-0_B_R_1511674856	ATTCAATGAAGACTTTAAAAATGGTCAGCAAAATGGTCAGCATCAAAAAAAATCTTAAAA[A/G]ATAGTATCTCTTCCTGAAGGCCTTTTCTTAGCTCCCAGGATGGGGCTTCTCGGTGCCCCA
ARS-BFGL-NGS-35963	Discovery	rs110551793	ss86303585	A/C	A/C	2	105193025	UMD3.1	ARS-BFGL-NGS-35963-0_T_F_1511681193	CAGGAACTTAAGTATTTTTCTAAGAGTGATTAACATAGAGCAGAGGCCGCTGTTTCATCG[A/C]ATCAGTTCAGTTGCTCAGTTATGTCCGACTCTTTGGGACCCCACAAACCACAATATGCCA
ARS-BFGL-NGS-40189	Discovery	rs109189655	ss86321720	A/G	A/G	2	89008935	UMD3.1	ARS-BFGL-NGS-40189-0_T_F_1511689293	TCCCACCTCCCACCGCAACCTGACTCCCAGATGAAAACCCATGCTTTGAACTTAGGCAGG[A/G]AGCCCAAGCCAGGCCTGGTCATTCACAAGATGCCTGGAGTCACAGCTGTATGCTTTTTCA
ARS-BFGL-NGS-57870	Discovery	rs110568121	ss86288122	A/G	A/G	2	37813654	UMD3.1	ARS-BFGL-NGS-57870-0_T_F_1544350841	AAGCCAGATGCATGGAAAGCAGGTTCAGCGAAGACAGTGATTCAAAACTCACACAGACAC[A/G]TCTCCAAAGTCCTGAGGCCAGCTCCCTGGAGGAAATCCGGCAGCCTCTGCCATCGAAAGA
ARS-BFGL-NGS-60640	Discovery	rs109370370	ss86291691	T/C	A/G	2	3242217	UMD3.1	ARS-BFGL-NGS-60640-0_T_R_1511650779	TGACTGATGGCTGACTGAAAGACAAGGATTCCATCCAAGGAGCAGTGAGCTCAGGCCAGA[A/G]TCACCAACCACATACGGTCATGTGAATGTAATTTTAATGTAAAATAAAATAAAATAAATT
ARS-BFGL-NGS-67260	Discovery	rs109453608	ss86297852	A/G	A/G	2	135190642	UMD3.1	ARS-BFGL-NGS-67260-1_T_F_2128295783	AGCTCTTGCTCTTCTCTCCTTCCCCAGCCTTTTCATTCCCGGCCTTATCTCTTGCCCAAG[A/G]CTCTCTCCTTCCCCGGCAGCCTTCTCTTGGCTGGCTTTTGTCTGCCAGGTTCGGCTTCCC
ARS-BFGL-NGS-72192	Discovery	rs109205936	ss86301441	T/C	A/G	2	65044427	UMD3.1	ARS-BFGL-NGS-72192-0_T_R_1511672013	TCAGTTTATAACATTTGTGAAGACATATCAAGTAGGGCAGTTTCTGGCTGAATGTTACTC[A/G]AAGGCCCATAGTCTCAGCTGACCTTTGGTAGTTAATATTCAGTTGTAGATTATCAGGGTC
ARS-BFGL-NGS-89098	Discovery	rs109154008	ss86318772	T/G	A/C	2	13901492	UMD3.1	ARS-BFGL-NGS-89098-0_B_F_1511689922	TGCCTAGCTCATCCTGGGCTGGGACCCCAGGCATCTGGAAGGGCAGACTCTAGACTCAGA[A/C]AGAGCATCCCGGCCTGGGTGCTGTGGGGATTTGACTGGGAAAACACTAGCCCCTCTCTGT

SNP name	Group	rs	ss	Forward A/B alleles	Top A/B alleles	Chromosome	Position	Assembly	Illumina Probe ID	Genomic flanking sequence
BTA-114831-NO-RS	Discovery	rs41574370	ss61473860	T/C	A/G	2	39709004	UMD3.1	BTA-114831-no-rs-0_T_R_1544353375	TTTCCCCCAAATAAAAATCACAGAGGGCCCCCTAAACCAGATGCTGAAATATGTTCACCT[A/G]TTGAAGCTCAGAATTGTCTTTAGCAGGATCTGGAAAACATCCACATGTCCCTTTACCTAT
BTA-19852-NO-RS	Discovery	rs41628437	ss61526969	A/G	A/G	2	42986890	UMD3.1	BTA-19852-no-rs-0_B_R_1511616743	ATATTATTGTCCTGAACTTCAAAACAACACATAGTTTTCCTAGATGAGGAAGACAAGACA[A/G]TTTACCTCTTCTTTATGCAGAGGTCCCGCTAGCAAGGGAATGTTTAGTAAAGGGTTAAAT
BTB-00079213	Discovery	rs43288464	ss65203384	A/G	A/G	2	8476975	UMD3.1	BTB-00079213-0_T_F_1511575540	ATATCTTGATCATTCTTTGGGCCCCCTATAACATACTAGACATAATAGGTGGCAACAAAT[A/G]TGCCCACACTTAGAATAACGTCTTGCAAATATTGAAAGTGTAGATTCTGAACTCATATAC
BTB-00082871	Discovery	rs43293394	ss65207039	T/G	A/C	2	20699862	UMD3.1	BTB-00082871-0_B_F_1544353914	TAATTCTTGCTTTGTTCATAATTTTATTCTCATCTAGAATGTCCTTCTTCCTTCTCTATT[A/C]CTTTCCAACCCCTGCCCATTTTTAAAGTTTCTGTTTAAACCTTTCATCTTGAAAAGTTCT
BTB-00089384	Discovery	rs43300334	ss65213533	T/C	A/G	2	35264900	UMD3.1	BTB-00089384-0_T_R_1511575544	TTGTCTGTCATATAACAAATATAGTTCTCAGTGAGGCATAGTTATAAGCCAAGTTTTGAT[A/G]TTTAAATATTACCTGGGGGAAGAAACTTTTGGTATAGCCTTTTTTTGTGCTCAAGAATAT
BTB-00098773	Discovery	rs43304762	ss65222905	A/G	A/G	2	52497009	UMD3.1	BTB-00098773-0_T_F_1544354015	ATTAAACACTTGCCATCTTCATATAACATTGGGTCTTGTTGGTACAGTAGCAGTCAAGTA[A/G]GAACTATACTGTTACGCCTGACCCCTCCTCCCCTCCCTGTCTTTGATCTGGGTGGGCTCA
BTB-01753605	Discovery	rs42862169	ss64771163	T/C	A/G	2	55729126	UMD3.1	BTB-01753605-0_T_R_1511529124	TTTCAGATTTTATAGAGTATATTTCATGATAAGTTAGGTTATGATAGGCTCATTTCACAG[A/G]GGGAAAATTCAGATTCAGAAAAGTAAATTAACTTAACAAACTGTCAAAGTTTGTCTTAGG
HAPMAP33049-BTA-153946	Discovery	rs109475468	ss117966789	A/G	A/G	2	79320427	UMD3.1	Hapmap33049-BTA-153946-0_B_R_1544355884	AAATTGATAAAACAATAATAATAATGTCTTGTGAGCTTAGAAACATAGTACAACTGAAAT[A/G]ATGGACATCAACACCACATTTATAAAGGAGAGCTAAAATTAAAATATTCTTGGGTTTTGT
HAPMAP35220-BES9_CONTIG365_495	Discovery	rs43710074	ss66538228	T/C	A/G	2	70895063	UMD3.1	Hapmap35220-BES9_Contig365_495-0_B_F_1509283901	GCACCCTTCCCTGGCTGCAGGGCGACACCACACTTCCATCAGGGATGCCTGGGTCCTGGA[A/G]AAAGATTCTTTGCAAGTTGAAGAGCAGAGCCTTTTAATTGCCATGTCCCCAGTGACATAA
HAPMAP35744-SCAFFOLD60587_8279	Discovery	rs29018369	ss117966872	A/C	A/C	2	111361143	UMD3.1	Hapmap35744-SCAFFOLD60587_8279-0_T_F_1509222362	AACTAAGATACATTTTCCAAAAAGCAATTTGGCAGTTCGTGTGAAGAGTTCTGAAATAAG[A/C]TTTTCTTCCAGTTCTCCGGAAACAATTAAATATTTAAACTCCAGTTGAAGTACAAAGATA
HAPMAP42104-BTA-121232	Discovery	rs41619967	ss61523297	T/C	A/G	2	81159639	UMD3.1	Hapmap42104-BTA-121232-0_T_R_1509308138	CAAGAAAGCAGCATCTGTCTCACACACTCAAGCTGTGTGTTCTTTCACCTCCAATCTTTG[A/G]ATGTTATTGTCAACTCCCAGCTCCCAAGACTCCTCCTCTAAGTAGTATCACACCTGCTGC
HAPMAP43869-BTA-49512	Discovery	rs41636478	ss61542755	T/C	A/G	2	120301651	UMD3.1	Hapmap43869-BTA-49512-0_B_F_1511566101	TTATTTTTAAACTTTTTAAACTGAATAAATTTATCGTGTTCATAATTTTTGAAGATAGGT[A/G]TTAATACTTTGAATTGCAGCCAGTGACATAGATTTGTCACAGAAAGCCTTATACTAGTTT

SNP name	Group	rs	ss	Forward A/B alleles	Top A/B alleles	Chromosome	Position	Assembly	Illumina Probe ID	Genomic flanking sequence
HAPMAP44545-BTA-47658	Discovery	rs41637159	ss61541725	T/C	A/G	2	52339443	UMD3.1	Hapmap44545-BTA-47658-0_B_F_1509288953	TACAATTTATATTTTTTTAGAAAGGCTTTCCTGGAGGGAATTAACTTTATACTCTTATAA[A/G]TTTAATAGAAATGATATATCACCTCTCTGTTAGATTGATAATTTGTACAACAGTAGTTAA
HAPMAP49925-BTA-24427	Discovery	rs41633771	ss61529263	A/G	A/G	2	86704498	UMD3.1	Hapmap49925-BTA-24427-0_T_F_1511602514	CCCTGAGTAACTGGACATCTGAAGGCTATCAGTGAACCACACATTTTGTAGCTGGAAAGT[A/G]AGTCCTTTATTGAAGAAGAATCTGAGTGTGGCATCTCTGTTTGACATCTAACTTACACAC
HAPMAP51412-BTA-16926	Discovery	rs41621063	ss61525448	A/G	A/G	2	59690093	UMD3.1	Hapmap51412-BTA-16926-0_T_F_1511602922	TAACAATAAATAAGAACAACACTTTTTTTTCCACGTCTCAGGAGAAGAACACTTAATGGAT[A/G]ACAGAGAAAGATACATAATAAATATAATGCTTTGAACTGGCAGGTACTAAAAGTGAAGAA
HAPMAP51598-BTA-47943	Discovery	rs41638281	ss61541849	T/C	A/G	2	65700940	UMD3.1	Hapmap51598-BTA-47943-0_B_F_1509318833	TAGTTCCCTCCTTCTTTTCTCCTGCTAAATACTATTATAAGAAGTTTTAAATTTTGTTTT[A/G]CATTGAAAAATCACAGGCCTAAAAAGAAGACACACATTTATATCAGACCAAAAATCTTTG
HAPMAP52627-RS29014567	Discovery	rs29014567	ss38326256	T/G	A/C	2	100273809	UMD3.1	Hapmap52627-rs29014567-0_T_R_1511601434	TAATCCAATATCATCCTCTATATTTCCATGATGTTCTTTGCAATTTTTTGTTGTTCATTT[A/C]TGATTTTATTAGTTGAGCTCTTTTTTTTTTTTTTTTTCCTTATGAGGCTTGCCAAAGTTT
HAPMAP54320-RS29012920	Discovery	rs29012920	ss38324019	T/C	A/G	2	5037866	UMD3.1	Hapmap54320-rs29012920-0_T_R_1509313654	AAGTGGCACTGTTTGTTAACCGACTGACTGACCTGAGGGGCTTTGCAAGTTGATAGAACT[A/G]CATGTCTAAGCATCATTTATCCTGCTGCTACTGCTGCTAAGTCACTTCAGTCGTGTCCGA
HAPMAP54766-RS29012658	Discovery	rs29012658	ss38323754	T/C	A/G	2	14451633	UMD3.1	Hapmap54766-rs29012658-0_B_F_1509320651	AAAACAACTGAGTCATGTCTTGACAATAAATGAGTGAGTGAATGAATGAGTAACAAAAAA[A/G]CACATACTCACTGTGTGAACTGTTCCTTAAGCTTTTCGAGGGTTAAGTGGCTTTTGTGAA
HAPMAP58509-RS29024139	Discovery	rs29024139	ss38334232	T/C	A/G	2	37635484	UMD3.1	Hapmap58509-rs29024139-0_B_F_1509331449	TGGTATATATACAATGGAATATTACTCAGCCATTAAAAAGAATGAGATAATACCATCTGC[A/G]GCAACATGGTTAGACCTGGAGGTTATTCTTCTAAGGGAGGTAAATTAGAGAAGGACCAAT
UA-IFASA-4619	Discovery	rs29014393	ss117963586	T/C	A/G	2	76309053	UMD3.1	UA-IFASA-4619-0_T_R_1511687463	TTAGGCCAAAACTCCCAACCCTATTAAACAGATGACCATTGGTTGCAAGGTATCCCAACT[A/G]GAGCCTTCTGCCTAGGGGAGAGCTGAAAGCCATGGATAGGGAGGCACAGGGCATACTGCA
UA-IFASA-8833	Discovery	rs41643750	ss117963637	T/C	A/G	2	116087072	UMD3.1	UA-IFASA-8833-0_T_R_1511694635	TCTACCTTCAGACCCAACCTGTCACTGGAGTTTCTTGATGAGGTTTCATGCAGTTATCCC[A/G]TTTGGTAAATAATAGAGGCAAATTATTTAATAAAAGTAGAGGGAAAATATAGGCTTGCTT
ARS-BFGL-NGS-103524	Discovery	rs110713161	ss86332467	T/G	A/C	3	85253155	UMD3.1	ARS-BFGL-NGS-103524-0_B_F_1511673760	TAAAAAAGGGGGGGGGGTGCATCTTGAATACATTTTAAGGGAAGAGCAGGCCTCACTTGCC[A/C]CCTTGCACTTTTTCCCACATGCAAAAGAGCTGCTACTTTCCTGATACCCCAGATGGTGGC
ARS-BFGL-NGS-105811	Discovery	rs110161964	ss86306287	A/G	A/G	3	22706379	UMD3.1	ARS-BFGL-NGS-105811-0_B_R_1511679734	GAAGCCCCCTGCACATTAGCAAAGTTCTGCCCACCAAGGCCTGAGGGGAAACAAGACTCA[A/G]GTCAGTCCAGCACTTCTACCTATGACCCAGGTTCTTATTTAGTTTTTGTAATCAGGCCTC

SNP name	Group	rs	ss	Forward A/B alleles	Top A/B alleles	Chromosome	Position	Assembly	Illumina Probe ID	Genomic flanking sequence
ARS-BFGL-NGS-111118	Discovery	rs108937915	ss86338009	A/G	A/G	3	32077291	UMD3.1	ARS-BFGL-NGS-111118-0_T_F_1511637569	AACACATGGTCCTCAGGGTATCTGATCCAAATGGCTTACTCTGATGACTGGCAGGCCAAG[A/G]TAGTAAACACAGGAGACCTAGAACCTCTTCAGATTATCTAGTTATCTAATTGACCCTGAT
ARS-BFGL-NGS-113910	Discovery	rs110690853	ss86338078	T/G	A/C	3	43939238	UMD3.1	ARS-BFGL-NGS-113910-0_B_F_1511647530	GTAAAAAAAATTCCCAAGGTCTCATGTGTAGCACAGAACAGATGAAGGCCATGTGACACA[A/C]TGTAGGAAGGAAAAAATGGGCTTTTCTGCAATAACCAATGTGCACTGAAGGCTGGATAGG
ARS-BFGL-NGS-114028	Discovery	rs43365742	ss86339556	A/G	A/G	3	105173273	UMD3.1	ARS-BFGL-NGS-114028-0_T_F_1511648511	GTGTGAAGACCACACTGCAGGAAGCCAGGTTAGCATGGCAGGCTGGTGCTCTCATCAAGA[A/G]GTGATAGTGCGGCCAGGGTGGCAGCCTTGGGAAGTGGTTGGATTCTGCGTGCAGTCTGAA
ARS-BFGL-NGS-117241	Discovery	rs109896720	ss86338373	T/C	A/G	3	28144691	UMD3.1	ARS-BFGL-NGS-117241-0_T_R_1511653091	AGAAATTCATAGGCTCTTCTGGGAATGGTCTGGTTGTCAAATAAGTTGCTTCTCACAAAT[A/G]TCCACATGCGGAGAGAAGGGCCCAGGGCCGGTGGGAAGGCGTGCGTAAGCTCTCCAAATT
ARS-BFGL-NGS-117870	Discovery	rs109182422	ss86339080	T/C	A/G	3	33332678	UMD3.1	ARS-BFGL-NGS-117870-0_T_R_1511654221	TCTCTCTGGGTAACCTGAGCCATCGCATACAAGTCTGGCCACCCAGATGTGAACTGAGCT[A/G]TGGAGTCTAGTTGTCTGGGGAGTGCGTGAGCTTAGCTTGCCAACTGTTCTCACTGAGGTG
ARS-BFGL-NGS-118597	Discovery	rs43355872	ss86336478	T/C	A/G	3	103268281	UMD3.1	ARS-BFGL-NGS-118597-0_T_R_1511654417	TCCCTGTCTCCTAATACAAGCTTGCAAATCCAACACCAATACTTTGATTCCATACTGCAT[A/G]CCAGGTCCTGGGCTAAGGGCAGGCCCCAAGGGTATCCTCCCCAGCAGAAGAGCTCACATG
ARS-BFGL-NGS-17527	Discovery	rs41621390	ss86286004	A/G	A/G	3	4279731	UMD3.1	ARS-BFGL-NGS-17527-0_T_F_1511644643	AATTGAACTAATTTAAAGTGAGAATCACTTTATGGCCTCTTCCCAGCTAAGGCCTGGGGA[A/G]AGCTGGGGTTTGCTTAGGGATGCTGGACTCCTTGCAGATGTCTGCTGCCCTCCTCGAGGG
ARS-BFGL-NGS-20403	Discovery	rs43371159	ss86295607	T/G	A/C	3	119000177	UMD3.1	ARS-BFGL-NGS-20403-0_T_R_1511649091	GCACAGGTGCTCCGGTTGCTTTTGGTAACAGCCTTGCTTGTGCGAATGGAGCCCTTTGCA[A/C]ACCTGCAGTGCTCTGGCCTCTGCACCCGGAGCCCAGACCACACCCTGGACCAATCCAGTC
ARS-BFGL-NGS-2215	Discovery	rs43355620	ss86306392	A/G	A/G	3	84693517	UMD3.1	ARS-BFGL-NGS-2215-0_T_F_1511650245	GAACAAGGATGAGCCATCGCAAATTTAAAGCCAACATAGGCCCCCTAGTCCCTGGCTGAC[A/G]CTGCCTCTAACCGCACATTCGTGAGTGAGCCCAGTCAAGACCACAGGAGCCCCAACCCCA
ARS-BFGL-NGS-27948	Discovery	rs109754043	ss86304157	A/G	A/G	3	10000411	UMD3.1	ARS-BFGL-NGS-27948-0_T_F_1544346623	CTCTTTCATCTCCAAGGGTGTCTCTGGGCCAAAACTTAATAGATAGGCAAAATCAGGGCC[A/G]TTGGGTCAATCCTAAAGGAAATCAACCCTGAATATCCATTGGAAGGATGGATGCTGAAGC
ARS-BFGL-NGS-34169	Discovery	rs109033268	ss86285964	A/G	A/G	3	19309220	UMD3.1	ARS-BFGL-NGS-34169-0_B_R_1511675022	CAGCAACCCCGTAAGTACTGGCTCTTGCATCCTTAGCTGGCCGTCGCCCACCACGACGTA[A/G]GGTGCCTATCTCTGCCTCACCCACTGGCTCTGTGATGAAGCGAATCTGGACTCCATGGTC
ARS-BFGL-NGS-34393	Discovery	rs109268555	ss86274328	A/G	A/G	3	50673505	UMD3.1	ARS-BFGL-NGS-34393-0_B_R_1511675570	GACTGAGCGACTGGACTGAACTGAACTGAACTGAGTGAGACAAAAGGAAAGAATCAGGGT[A/G]CCAGCAGGAAACAAATGGCCAACAGGTACCTGAAAAGGTACTATCACTAAACATCAGAGA

SNP name	Group	rs	ss	Forward A/B alleles	Top A/B alleles	Chromosome	Position	Assembly	Illumina Probe ID	Genomic flanking sequence
ARS-BFGL-NGS-45686	Discovery	rs109578131	ss86302394	A/G	A/G	3	26031815	UMD3.1	ARS-BFGL-NGS-45686-0_T_F_1511687489	CCAAAGCAAGGAACCCCCTTCAGAGTCAAGATTCCATTCCCTTAACCTTCCTAGCAAACA[A/G]TTGGCCCTAAGATTGATTCAGAGGCCTCACTGCCTCAAATTTTAGAGTCACCTTTCTGAA
ARS-BFGL-NGS-57417	Discovery	rs108998940	ss86288485	T/C	A/G	3	43975868	UMD3.1	ARS-BFGL-NGS-57417-0_T_R_1511647237	TTTTTCATTGTATTGTTGGCAGCAGGCTTCTTTTGGGCCTTTTTGCTTACTGTAGAATGA[A/G]AGTCTTTCGATGAGTACCTGACAGGAATGGCTGGTGCTAAACTACTTAAACCCAGGTGGC
ARS-BFGL-NGS-58066	Discovery	rs111019940	ss86287927	T/C	A/G	3	92986164	UMD3.1	ARS-BFGL-NGS-58066-0_T_R_1511646213	TTAAATGCTTAGATTGTAGTCTTCCCACAGGATTAAGTAGTGATTTCTGTTTTCATAGGC[A/G]GTTTCATAGGCCTCTTGACACTGTGAGGGGCCTCTTGAATCTCTCGTTGCTCTACCACGT
BTA-100337-NO-RS	Discovery	rs109133797	ss61512219	T/C	A/G	3	41371572	UMD3.1	BTA-100337-no-rs-0_T_R_1511596400	TAAAATATAAAGTAAAATCTTGGCAATACAAAATTCTTCATTAATAACAGACTCACTTGA[A/G]RCACTGAGGTGAAAGCATTGTTAAATCCACTATACATTTCCTTTCCTTCCTAAAATGAGT
BTA-68995-NO-RS	Discovery	rs43712181	ss61553433	A/T	A/T	3	97793166	UMD3.1	BTA-68995-no-rs-0_B_R_1511533257	AATAATAGTACCTACCTTGTAGAGCTCCAGTGAAGAAAAATCACTTAATATTTATAAATA[A/T]CTTAGTACTTGGTATCTGTGGTGTGTGCTCAGTCCTTAAGTTGTGTCCCACTCTCTGCCA
BTB-01097609	Discovery	rs42253045	ss63508922	A/G	A/G	3	68271435	UMD3.1	BTB-01097609-0_T_F_1511607354	AAAGACACCTTGTTACAAGAATCCAAAATCTGTCTCCAGGCAGGTGTCTGGGTCTTGAAG[A/G]GCTGAGCCTTCTCTCCATTCTGTCAAATGCACTTAGGTAGGACACTTTTCTTATACTTTA
BTB-01626709	Discovery	rs42737927	ss64644746	T/C	A/G	3	113907407	UMD3.1	BTB-01626709-0_T_R_1511532710	CTCTGCATCCCTAAAAATGGGTCTGTCCCACTCCCACTGGGGGACATCTCGGAAGGTTCC[A/G]GGGSCTAGCTTCAGCCCTCCATCCTGAGCAGTCCACACCCTGGATTCTGCAGCATCCGTG
HAPMAP32799-BTA-132450	Discovery	rs41882343	ss117967002	T/C	A/G	3	73549770	UMD3.1	Hapmap32799-BTA-132450-0_B_F_1511597817	GCTTTTTACTAATAATTTTGGTGCTGTAATTAAATGTAGCAAGGCTAATATAATACTTCT[A/G]GTAGTAAATTCTTGCCATCTTTTCAATAAACCGATCAACAGTTTTTCCAGAAAGCATTCT
HAPMAP40508-BTA-21513	Discovery	rs41575437	ss61477190	T/C	A/G	3	73035441	UMD3.1	Hapmap40508-BTA-21513-0_T_R_1511628626	TTTTGTGACATCAGTGAAATGATCCTATCCTTGCTTTATGTACAGAACTCTGTGTGCGTG[A/G]TGGGGGGTGTTTGAGTGTGTGTGTGTTACGTATTCCAGTTGAGGCAGTTTTAGCATAAGG
HAPMAP43906-BTA-66658	Discovery	rs41587368	ss61488827	A/G	A/G	3	14273135	UMD3.1	Hapmap43906-BTA-66658-0_B_R_1511566459	AGCACTCTACACAAGAAATTGTATTATTTTTATTGTTATAAATTCCAAATGGTTAATGGA[A/G]TAGGAAAATTAGAAACTGCCTAGGCCTGAAGATTAGGAAATACTATCAGCCTAAAGAAAA
HAPMAP43908-BTA-67758	Discovery	rs41590454	ss61489117	T/C	A/G	3	44959256	UMD3.1	Hapmap43908-BTA-67758-0_T_R_1509279944	TCTCTTAAGTGGAAGTTAAATCAGTTCTTCCTTATTTGAAAATTTTGGCATTTAATTCAT[A/G]TTGAGAGAGAGAAAAAAAGAGAGAGATTGAGAGAGAACAAGGATTGTTGCTTAAGTAACA
HAPMAP46717-BTA-69803	Discovery	rs41586388	ss61489670	A/G	A/G	3	118167062	UMD3.1	Hapmap46717-BTA-69803-0_B_R_1511576995	CACACAATACAGCCAAAGCAAAGTGGGAGGGGGGCAGAGAACTGAGAACACCACGTGCCT[A/G]TCTGGGACCAGGCACTGGGCTCTCAACAGCTTTGTAAGCAAAGTCATATTGGCGGTGGAC

SNP name	Group	rs	ss	Forward A/B alleles	Top A/B alleles	Chromosome	Position	Assembly	Illumina Probe ID	Genomic flanking sequence
INRA-638	Discovery	rs110438768	ss117962838	A/G	A/G	3	62004226	UMD3.1	INRA-638-0_B_R_1511657600	AAGACTTTCTCCTTGCATGTTAGCACTGGGGCACTCTTTCTGAAGGATATGGTTACAGAA[A/G]CCTGAACTGCTCCAGCCATTTTGCTATCATGAAAGAAGTGATCCTGCAGATGCAGCTGGC
ARS-BFGL-NGS-103280	Discovery	rs109268659	ss86332959	T/C	A/G	5	84523411	UMD3.1	ARS-BFGL-NGS-103280-0_T_R_1511673681	GTCCATGGAGTTGTAAAGAGTTAAGTATTCAGTCTAGAGTAGTGGCCCAGAGGACTGACT[A/G]TGATGTTGGGAAAGCTGACTGACAGTGGAGGGGAGGAGCAGAATAAGGAAATGGAGTGTC
ARS-BFGL-NGS-107085	Discovery	rs109223185	ss86289994	T/C	A/G	5	28660813	UMD3.1	ARS-BFGL-NGS-107085-0_B_F_1511677970	ATCATCTGAACGGAGGATCACTGCACGGGTCTGCAGGCCTGGCCCCGTTGGATACCCTTG[A/G]CGTGGGCTGTCCGTCCAGTCCCACACTCCAAACGTTGGGAGTGTCAGTCTCCAAGAGGCT
ARS-BFGL-NGS-14632	Discovery	rs110117542	ss86329869	A/G	A/G	5	118501191	UMD3.1	ARS-BFGL-NGS-14632-0_T_F_1511640527	CCCAAGAACAATCTGTGTCTTCCAGGAGCTGGACTTGTACCATCAGGTCGGGGGCTGCAA[A/G]AGGCCAGGGGGGCAGGGACACAACTGCAGAAAGAGGTGCACGTGGAGACCAGGGAGAAAG
ARS-BFGL-NGS-21717	Discovery	rs109513912	ss86313314	T/C	A/G	5	117102295	UMD3.1	ARS-BFGL-NGS-21717-0_T_R_1511649969	TGGGGGCAGGAGCGGGTAGGAGATCTGTGAGTCAGAAGTATCTCACTTAGAATGTACGGA[A/G]GGCCCCCTGCCCATGACACCCAACGGATTGATGGATCCTGCCTCTTACACCCAGTGATGG
ARS-BFGL-NGS-23432	Discovery	rs109724164	ss86277105	G/C	C/G	5	40112322	UMD3.1	ARS-BFGL-NGS-23432-0_T_R_1511658967	GGCAGGGAGGGCCATTTTCCTGTCTCAGCCTACAAGGACTGATGAGATGGAATCTTTAGT[C/G]TGTCTCTGTGGCAAATTTTCTTGGCCAAAGTGGAAAGCAAAGGCAATTATCCAAGAATCT
ARS-BFGL-NGS-23961	Discovery	rs110038808	ss86311819	A/G	A/G	5	25995476	UMD3.1	ARS-BFGL-NGS-23961-v2-1_B_R_1924247630	AGAGGGGAGAGCAGACCTCCTGGAGTGTCTGGAGACTCAGAAAAAGGGTACTGTGGCCCC[A/G]CAGCCCTTGACATTGCTCGAGGACTCCTTGCTGATGACTTTGAGGAAAGGTCTAGCGTCC
ARS-BFGL-NGS-25107	Discovery	rs109607671	ss86319576	A/G	A/G	5	119408760	UMD3.1	ARS-BFGL-NGS-25107-0_B_R_1544346228	AGTCCAGCCCTTTAGCTGCCTGCTACCCGGACCCACGTGTCTTCTCCGTGAAAGAGGGCC[A/G]CCTTTCCATAACAGAGTCCCTCCCGGATGTCTCCTGGAGACATTCCCTGCAGCTCCCCTA
ARS-BFGL-NGS-30677	Discovery	rs110873570	ss86294546	A/G	A/G	5	43565856	UMD3.1	ARS-BFGL-NGS-30677-0_T_F_1511666719	CAGAATTGGCTCTGGGCGGAAGTTAAAAAAGAAGTCTCTCCACAAAATGTTGGCCATTAT[A/G]CTATCTTCACAAGGGTCTGGAGTCTAAATCTTCTGTAGTTGAGGGTTGAGATTTAAGTGG
ARS-BFGL-NGS-33745	Discovery	rs110258843	ss86297916	A/G	A/G	5	51064864	UMD3.1	ARS-BFGL-NGS-33745-0_T_F_1511675641	GATGTCAAGCATTTGGAATATAATAGAACCAAATGGAGCAGGCCCCCCTCCTGACACTTA[A/G]GTCCTGGAGGAGGCTCTTCCACGTCTGGTTAGACATTTGTTGGCTCCTCCCCACAGGCCA
ARS-BFGL-NGS-39913	Discovery	rs109168591	ss86320410	A/C	A/C	5	85535871	UMD3.1	ARS-BFGL-NGS-39913-0_B_R_1511685024	CAGGAGGCCGGTTCAGACCCTGAAAATAGGATCAGGGCCATTTGGGCAGGGAATCCCTAG[A/C]ACTGAGTATTTGGAGTCTGTCTAGAAAAGGGTCCAGTCAACTGCTTGCTCCAAGGAGGTC
ARS-BFGL-NGS-44153	Discovery	rs109783698	ss86307990	T/C	A/G	5	97430973	UMD3.1	ARS-BFGL-NGS-44153-0_T_R_1511688905	GGTGGCTTCGCCCTCACTCAGCTCCCTTTGCTGGATTGACAGGCCACAAACTCAGAAGAA[A/G]AGAAAAGAGTGGAGGAGGACTCCCCTGGTGGTCGGTCCAGTGGTTAAGACTCCGAGCTCC

SNP name	Group	rs	ss	Forward A/B alleles	Top A/B alleles	Chromosome	Position	Assembly	Illumina Probe ID	Genomic flanking sequence
ARS-BFGL-NGS-45453	Discovery	rs109934583	ss86276041	C/G	C/G	5	112521878	UMD3.1	ARS-BFGL-NGS-45453-0_T_F_1511683719	ACGATTTTCCTGGGGTCATGCCCACTGCATCATACCCTGACTTACTTCTCTTCAGACTCA[C/G]GACACAACTCTGGGTGACCTAGGCCACCCACCAGGCCTGTCTGAGTATCTTAATGCCTGC
ARS-BFGL-NGS-53461	Discovery	rs110059642	ss86283356	A/G	A/G	5	30659497	UMD3.1	ARS-BFGL-NGS-53461-0_B_R_1511641618	AAAGTGGGCGCTGGGAGGAGAAGGTCAGGCTGGTGGTCGCTGGAGCCCACTGACTGGTGC[A/G]GGGCCGTGGACTTGACTCTGGATTTCTGAGTTCCAGGGAGCAGGCTTCTGATACCCCTGG
ARS-BFGL-NGS-72413	Discovery	rs109023960	ss86303481	T/G	A/C	5	82466920	UMD3.1	ARS-BFGL-NGS-72413-0_B_F_1511661802	CCACGGTGGAGGTTGGGCGGGCGGCGGAGGGGGGGGGCTTGAGATAGACACAGATGGGCC[A/C]GAAGAAAGGGCATGCCTGTCCTTTCTTGAGTTACATTGATTCTTCTCCCCACTTCTGAAT
ARS-BFGL-NGS-7433	Discovery	rs109090162	ss86274207	T/G	A/C	5	44885503	UMD3.1	ARS-BFGL-NGS-7433-0_T_R_1511671751	GAGGACCACCACTCCCCCACTGCTGGCTGAATGTGCCCAGTAACAGTTTCTCCTTGACAG[A/C]TGCTTGCTGGGGGAGGGGCCCACTGCAGCACTGACCAATGGCTGAGCAGGACCTCTAATG
ARS-BFGL-NGS-81155	Discovery	rs109443432	ss86311662	T/G	A/C	5	13271489	UMD3.1	ARS-BFGL-NGS-81155-0_T_R_1544361695	TGTGCTTCATGTTGACATGAATATGGTCATACTAAAGTACAGATTTGTACATCCTAAAGT[A/C]GAGGCCCTGATGCTGGGAAAGATTTAAGGCAGGAGAAGAAGGAGACAACAGAGGACAAGA
BTA-37834-NO-RS	Discovery	rs109957658	ss61481328	T/G	A/C	5	93187014	UMD3.1	BTA-37834-no-rs-0_B_F_1511540521	GTGAATAAGTCTAAACTGGGAAGAAACCTGGGGTGTTCAATAAACTTACATYAGGCTGAT[A/C]TTACTACAGCAAAGCTAGCTGGGAGAAAGAGTGGCAGGGGAAAAAATTAGAATAGTCTGT
BTA-73797-NO-RS	Discovery	rs41590761	ss61490756	T/C	A/G	5	64190317	UMD3.1	BTA-73797-no-rs-0_B_F_1544347852	TCTCAACTCTCTATATTTGGATTATATCGTTTCTAAGCTGGTCATCATATAGTGGAAAGA[A/G]CATATATTTTGGAGTTGTACAGATCAGGATTTGTATCCGTAGGCTTCTGTTTACTAGTTA
BTA-85566-NO-RS	Discovery	rs43743037	ss61562356	A/G	A/G	5	66040455	UMD3.1	BTA-85566-no-rs-0_T_F_1511550972	AACATATTGGTTTGAGCTGAATCCAATTAAGAAGGCGCAAAAGCAGAAAAAGCTCTCTCT[A/G]CCCTCTTCCTTTCTGCCTACAACTCTTCTCTTCGGCTCTCAGTTGTGTCCGACTCTTTGT
BTA-89424-NO-RS	Discovery	rs109089295	ss61564393	T/C	A/G	5	16666769	UMD3.1	BTA-89424-no-rs-0_T_R_1511558042	TCTAGAAGCCTCCTTGTAAATGATTGGCATTTTCCTACACTCAGTGTTTTCCTCTAACAC[A/G]AAYCACTGTGTACACAGGCATCACCTGGACCTTGTAATGTAAGTATGTGGGAATTAAGGT
BTB-01495784	Discovery	rs42616286	ss64388054	T/C	A/G	5	34101843	UMD3.1	BTB-01495784-0_B_F_1544360158	TCTTTTTCCCAGCTAAGAATGTGAAAGTGTCTCAGGGGGGAATAGTCAAAGAACCTGACT[A/G]GGTAACTGGTAGTAACCTTTTCTAAACCAAAACTAGGACCCTTGCTTTGCCCCCTCATCT
HAPMAP33479-BTA-137049	Discovery	rs109840696	ss117967832	A/G	A/G	5	15224660	UMD3.1	Hapmap33479-BTA-137049-0_B_R_1544361458	ACATTTCCTGCAATTATACTATAAACAAATTTGAGCAATAGTAATTAGGAACAGAAACTG[A/G]AATAAAATTGTAATATAGGCTCTAAAATCTGGGTACTTGTAACCAAGATTCTATTCTTTA
HAPMAP39103-BTA-111886	Discovery	rs41611298	ss61518129	A/C	A/C	5	91346899	UMD3.1	Hapmap39103-BTA-111886-0_T_F_1511627344	AAAATTGACACATAATGTGAAGTAGAAGCTATATTAAATTCCAAAGAAAAGAAAGATTTT[A/C]AGAAAATATAACAAAAATTTCCAAGCTTATCTTTAAAAATTTTTTAAAAACACTACAAAC

SNP name	Group	rs	ss	Forward A/B alleles	Top A/B alleles	Chromosome	Position	Assembly	Illumina Probe ID	Genomic flanking sequence
HAPMAP40581-BTA-73771	Discovery	rs109701457	ss61555894	A/G	A/G	5	67153683	UMD3.1	Hapmap40581-BTA-73771-0_T_F_1511629002	GGATTGCTAGACTGAGACTGCAGCTAGGATTAACGGGAGAGAGTGCGGTGGTTGATTAAG[A/G]WTGTCTGCGTCAGTTGCTGGAAAGGAGAGTGGTGGTTGTACTTTTGTTACATATTTGCAA
HAPMAP44400-BTA-72792	Discovery	rs41587982	ss61490476	A/G	A/G	5	15696963	UMD3.1	Hapmap44400-BTA-72792-0_T_F_1509273674	ACTTGATCACTCATTCATTAGTAACCATTTTCAGCACTGTAAAACTATCAAGAGTAGACA[A/G]TTTTACTTTGAAATATTTAAGGTTGTATTTTTAGCATCTACCAACATATTTGTTGTTGAG
HAPMAP47185-BTA-114173	Discovery	rs41573130	ss61473714	T/C	A/G	5	99044605	UMD3.1	Hapmap47185-BTA-114173-0_B_F_1511577057	TTGCCCATAAATCAAGTTTTTACAGGCCATGGTGAATATTAATTTGCCCAGAGAGCTCTC[A/G]AACTGGAAGAAGCAACAAGGTGGCATAATTCTGATCAAGAAAGGAAAAAACTTGTTTATG
HAPMAP50837-BTA-98392	Discovery	rs41593990	ss61497060	T/C	A/G	5	46995137	UMD3.1	Hapmap50837-BTA-98392-0_B_F_1509318315	AAGTACAGAAAGGCAATATGATGAGCAACGGGAGAGAAACGTTATTACTTTTGATGATTC[A/G]TAACTACTTGTTCAGGGAGGATCCAGTGTTCTCCAAATGCAGATCTTCTCAAAAGGGCTT
HAPMAP51304-BTA-74559	Discovery	rs41591921	ss61490918	A/G	A/G	5	93718582	UMD3.1	Hapmap51304-BTA-74559-0_T_F_1511602314	CAAACTATGCCCATAAGGAGACTTGGACAATAGCTTACATTTTAAATTGTAGTAATTGTG[A/G]GTGCTACTAACCTGACAATCTCAAATATATTTATAAACTACACACACAAAAATGAAATGA
HAPMAP59828-RS29027014	Discovery	rs29027014	ss38329400	T/C	A/G	5	66830677	UMD3.1	Hapmap59828-rs29027014-0_T_R_1509289834	ATAGAAGTTAAGTAAATAATGTTTACACTCAACCCACTTCCTATATTCTGTGGCTAGTAT[A/G]GTTTTAACTTTGATTTGGGAATTCTCTATAAGATCTAGTTGTCTACCAGAACTACTCTCT
HAPMAP60420-RS29010136	Discovery	rs29010136	ss38324636	A/C	A/C	5	112045991	UMD3.1	Hapmap60420-rs29010136-0_B_R_1511547925	CTTGATGTATAACTCATTTTTATTTGCTCCTGAATTACCAGAGTTTGGTGTGCCATAAGG[A/C]TGGGCTCTGCAGGAACTTAGATCCAAAATGGCAGCTGAGCTTCTGAAACTCACCAGAGCC
ARS-BFGL-NGS-102603	Discovery	rs110351681	ss86331087	T/G	A/C	7	67495781	UMD3.1	ARS-BFGL-NGS-102603-0_B_F_1544343612	GGCTGGAGTGGGTCAGGAAGATGGAGCCGGACAAGTGGCCAGGGGATCCTGTTCCTCCAG[A/C]TTTCTCATCCAATGGTCACATTCTAAGTCGACTCTTGACTCAACCATTTGGCATGCACTC
ARS-BFGL-NGS-109750	Discovery	rs110303958	ss86336681	A/G	A/G	7	45412030	UMD3.1	ARS-BFGL-NGS-109750-0_B_R_1511644208	CCATACTTGTGTTTTTATTTTTATTTGGCGGCGGAGGGACTGGAGGGGCACACGGTGGCC[A/G]CGTTACCGCCGTGTCTGCTCCCGGAGGATTAACTCCTTTCTCCTCCCATTGCAGAAGCCC
ARS-BFGL-NGS-110438	Discovery	rs109370616	ss86335506	T/C	A/G	7	27258897	UMD3.1	ARS-BFGL-NGS-110438-0_B_F_1511653326	CTTAGACTGTTAGTATGTCTTGAGTATTTCCCTCCTCCAAATAATCATCCGTCCTGGGAA[A/G]GGGCCACAAGAGCCATGTGTCTGAGAGTTGAATAAGCTGTGAGATGTGTACAGTCAACGT
ARS-BFGL-NGS-117421	Discovery	rs43494965	ss86341439	A/G	A/G	7	4286714	UMD3.1	ARS-BFGL-NGS-117421-0_B_R_1511653258	ACCCCCTCGCACTCCTGCCGCCTGCTTGGAGCGGAGGAGGGAGAGCTGTCCTGGCACGAG[A/G]TGCCGCGGGGAAGGTTGTTGGCCAGAGCACATTCTGGTTTGAGACAAAGTCTTGGCTTTA
ARS-BFGL-NGS-11889	Discovery	rs111029549	ss86320413	A/C	A/C	7	43292715	UMD3.1	ARS-BFGL-NGS-11889-0_T_F_1511678427	ATGGTGGTGGGAATGTATTATGGAGCTGCCATGTTCATATATATGCGGCCTGTGTCTGAC[A/C]GATCCCCTACCCAGGACAAGATGGTATCAGCCTTCTACACCATCCTCACTCCCATGCTGA

SNP name	Group	rs	ss	Forward A/B alleles	Top A/B alleles	Chromosome	Position	Assembly	Illumina Probe ID	Genomic flanking sequence
ARS-BFGL-NGS-75852	Discovery	rs109260182	ss86306495	T/C	A/G	7	71545383	UMD3.1	ARS-BFGL-NGS-75852-0_B_F_1544352212	TATTTAAACATATTTCAAATATTTTAGGTTTTAACATTTGGATGAACATACATTTTGCCT[A/G]GGGCCTGATAACTACCTAATGCTTTTACCAAAAGGAAGTGTTTTTAGGGCAGTACAGCAT
BTA-104712-NO-RS	Discovery	rs41611784	ss61514411	T/G	A/C	7	57011212	UMD3.1	BTA-104712-no-rs-0_T_R_1511596874	TCAGAATGGGGATAGGTTCTAGTAGAAGGTCCATTAGAAGCCTGAGAGTATTGGAGAAGT[A/C]CTGACGGTAAGGTTAATGGCCCAACTTTCCCTAAGGAGGGTTAATTCTTTCTTGTACGTC
BTA-113124-NO-RS	Discovery	rs43706044	ss61498638	T/C	A/G	7	73290787	UMD3.1	BTA-113124-no-rs-0_B_F_1511606763	TTTCTTTTGTTGGTCATTCATAGTTGTGAATCCAGCTACAATTTATTTCTTTTTATGCTA[A/G]CAATGGACAGCAAAGGGATAAAACTGTGTAAAAGAACTCTTTAATTCCTAATCTCTTTTT
BTA-20841-NO-RS	Discovery	rs41624194	ss61527534	A/G	A/G	7	92201609	UMD3.1	BTA-20841-no-rs-0_B_R_1511625217	GCTGCCGTCTATGGGGTCTCACAGAGTCGGACACGACTGAAATGACTTAGCAGCAGCAGT[A/G]CCGTATAATGCACAAGGACTTTTGGACTCTTTTTTTTTGGCTGAAAGATCTCATTGCTGA
BTB-00311926	Discovery	rs43517685	ss65435347	A/G	A/G	7	59651740	UMD3.1	BTB-00311926-0_T_F_1511573700	GGGTTGATTAATTTAGAAACCTCAATTTGTTTAAGCTGGCTAAAGGAATGGAAATTACGT[A/G]CATTAGAAGAAGAATGAAGCCTCATCACGATGCATTACAATAATGATAAAAAGGGAATGA
BTB-00312091	Discovery	rs43520350	ss65435512	A/C	A/C	7	63547825	UMD3.1	BTB-00312091-0_B_R_1511573713	TGAGGCTGCTTCAGAGTGCACAGATAAGGACCAGGTCCAAGCCCCCACCCCCATTAACCC[A/C]GCTCAAGGCTGTCTCAGCTATTCCAGCATCCCCCACTCCCCTAATTAGCTCCTGGGGGAA
BTB-00320041	Discovery	rs43526579	ss65443454	T/C	A/G	7	80573481	UMD3.1	BTB-00320041-0_T_R_1511582134	TTCATTAATAGCTTGATTGTAACTAGGATTTTGAAAATGTGGGCTCTGTGGCAGAGAGAT[A/G]TGCACACACAGTTCTAATTAACACCAATCACAAACGCTAATGGTAGAACCTACTGCTTAA
BTB-00327755	Discovery	rs43528937	ss65451163	T/C	A/G	7	76497957	UMD3.1	BTB-00327755-0_B_F_1511580653	TTCTTGTTTGATTTTCATATTGAATCTGCGGGTTCAGAGAGATAGAACTACATAAGTATG[A/G]CAGTCTATTGCCTTTTTCCATCCAATAACACACCCACAGGGCTTTGTGTCTCCCTCAGTT
BTB-00955215	Discovery	rs42118405	ss63104298	T/C	A/G	7	106043966	UMD3.1	BTB-00955215-0_B_F_1511588527	TTGACAAAACCCCATTACAACTTCAAACTAGTTGGTTATACTAATGAAAGTACTACCATA[A/G]AAATGGAGGTCTTAGATCAAGAGAGGAAACCTATGAAGTCAAAGATTTATGAAAGGTAGG
BTB-01130079	Discovery	rs42284419	ss63606117	A/C	A/C	7	58255324	UMD3.1	BTB-01130079-0_T_F_1544359883	TAGTGAGGATTCAATATGTGAGGTTGAAATGAATCGAGTAGCAAGATCAGGGCCTAGTTC[A/C]TTCATTTACATGATGGAAGTTTGAAGTTCCCTGTCACTGAACAAGTGAACAACTTTCATA
BTB-01172317	Discovery	rs42326854	ss63732749	A/G	A/G	7	36127497	UMD3.1	BTB-01172317-0_T_F_1511598710	AAGTAAAGAGTTCATCTTCTGGGGATATATCATGTCCTAGCTAATGAACTTTACTTTGAT[A/G]AAATTATAAATTCTCTTTTGGGAAACTTATAGCCTTTCTGAACTGAAACAGCAAGTAGAG
BTB-01453354	Discovery	rs42579108	ss64303872	A/G	A/G	7	77038018	UMD3.1	BTB-01453354-0_T_F_1511623182	AACCAGGTGGTGTTTCAGGTATCTCAGTTATCAGCCTCTGGTCCCAGCCGGTTTTGCTCC[A/G]CCTGACTGGGGGCCTTAGTTCCTGTGGAAGCACTCAGGGACTGTGTATCAGGTGGTTCTG

SNP name	Group	rs	ss	Forward A/B alleles	Top A/B alleles	Chromosome	Position	Assembly	Illumina Probe ID	Genomic flanking sequence
BTB-01920914	Discovery	rs43026255	ss64937240	A/G	A/G	7	86936090	UMD3.1	BTB-01920914-0_B_R_1544360918	ATGTTTGAAAAAAATTGCCTTCCTACTCTACAAAGATATGCCTGTGTATCTGATATTCTT[A/G]TTTGAGATGTTCATTTGGACTTAGGCACTGAGGACTCTGGATGAAATAATATTTGAAATA
HAPMAP30362-BTA-79378	Discovery	rs41605127	ss61504352	A/G	A/G	7	59353807	UMD3.1	Hapmap30362-BTA-79378-0_B_R_1544359594	TAGAGAAAGTTCTCCCAGAGCCTTCCAGCCTGTTGCAGTCATCCAGACTGGTTGCTTACT[A/G]TAGGCATGCACGAATGTCATCTGGGATGTTCCTCCACTGTTACTTAGGATTTCCTTAGTT
HAPMAP33032-BTA-148803	Discovery	rs42277425	ss117969067	A/G	A/G	7	68830299	UMD3.1	Hapmap33032-BTA-148803-0_T_F_1511592802	ATTTATTCTGCTACAGATAGTAACTATAAACTCTGGACAAAATGTAAAACACAACTGCTT[A/G]AAGAATCTAATAAACAAAAGCAGGAGAATCCAGAGAGTGATAGAAATTTGGGAAATGGGA
HAPMAP50109-BTA-79983	Discovery	rs41656547	ss61559313	T/C	A/G	7	81964652	UMD3.1	Hapmap50109-BTA-79983-0_T_R_1511601812	GCTCAGCTGCAGTTTACCTCTATAGCCTCCTTGAGCCCCACTTTTGAAAATGATTCCTGT[A/G]ATGCAAGCCTTTTATTCTGTGCTTCAGTTTTCCTTACTAATGCTCGTCATGATTTGTAGT
HAPMAP50113-BTA-80661	Discovery	rs41597420	ss61492473	A/G	A/G	7	8860921	UMD3.1	Hapmap50113-BTA-80661-0_B_R_1509285709	GCAGAATTGAATAATCTGCAAGGCAGCAAGAATGAGAGATGGTGTTCATTTCACAACACC[A/G]AGAAAGTACTGAAATGAGGAAAATGTCTGAGAAGTGAGAAACTAGGATTAGCCAAACGAG
UA-IFASA-4904	Discovery	rs29015019	ss117963926	T/C	A/G	7	35153271	UMD3.1	UA-IFASA-4904-0_T_R_1511687421	TTTGTTAAACTAACCAAAACTATCACCTTGTCACTGACAAACAAATTGCCAGTGAGGAGC[A/G]TGGGCAAGTCTTCATTAAAGGATTCACGAAAGGGAAGCAGGTGATACCACATGGTAGCTA
ARS-BFGL-NGS-106379	Discovery	rs42390350	ss86307964	T/C	A/G	8	113159018	UMD3.1	ARS-BFGL-NGS-106379-0_B_F_1511679852	GGCGTCACTTTAGGCACGAGGCAGCCAAGCCCCCGAGGGGAGGTCCTGGCTGGGCCAGAC[A/G]GCGTCAGCGGCAAGTCTGTGTGAGAATTCGGATTGCCTTCTTCCCACCCCGGGGCTCCTC
ARS-BFGL-NGS-108099	Discovery	rs109279813	ss86317401	T/C	A/G	8	23116314	UMD3.1	ARS-BFGL-NGS-108099-0_T_R_1511672675	CCCCAAGAAGAACCAGGATTCTGGTGGGGATATTGGCCCAGTCTGTGGAGGAAAATAGGT[A/G]TCCAGGATGAAAATGGTGGAAAGAAAGGGCGATGTCTGTAATAGTCCTGACTTGATGGTT
ARS-BFGL-NGS-108549	Discovery	rs110503484	ss86306174	T/C	A/G	8	82311830	UMD3.1	ARS-BFGL-NGS-108549-0_T_R_1544343919	CAGTAAGTAAAATCCCAGAGAAAGATTCTGACTGCTCCAGCCTGGGTCATGCTCTGTCCC[A/G]GTGCTTCAAATGATTGGCCTGGCCCCGGGAACCCTGGGACAGTTTTGGGAAAGGAGCATT
ARS-BFGL-NGS-110811	Discovery	rs110481266	ss86339546	T/C	A/G	8	69343704	UMD3.1	ARS-BFGL-NGS-110811-0_T_R_1511637675	CACATAGAAACATCATCCCAATCTCTGCCTTCATTTTCACATGGAGCTCTCCCTATATGT[A/G]TGGGCCTGTGTCCAAATGTCCCTTTGGTTAGGACTCATCCTAATGACCCCATTTCAACTT
ARS-BFGL-NGS-111788	Discovery	rs43578821	ss86340085	G/C	C/G	8	101231366	UMD3.1	ARS-BFGL-NGS-111788-0_B_F_1511638894	TTGTCAATGCTCTGCTCTCTCTCTCTGATGTCTTTGGGGGTAGATCCTTCCTGGCCTCTC[C/G]CGGCTTCTGGTACCCCAGGTCTTTCTTGGTTTGTAGCTGCATCACTCTAGCCTCTGTCTC
ARS-BFGL-NGS-117122	Discovery	rs109443931	ss86340374	A/G	A/G	8	20608192	UMD3.1	ARS-BFGL-NGS-117122-0_T_F_1511654401	CATCTGGCCTCATTCTGTTGTGTACAAGCTCTGTGTCCTCTCTAGTTTCAGTGCATGTGA[A/G]TACCAAGCGTTGCCACATGGCCGAGGCTAAGGAGATGCTACCTATTAGTACTAGTATTTC

SNP name	Group	rs	ss	Forward A/B alleles	Top A/B alleles	Chromosome	Position	Assembly	Illumina Probe ID	Genomic flanking sequence
ARS-BFGL-NGS-16925	Discovery	rs110070404	ss86323536	T/C	A/G	8	64476783	UMD3.1	ARS-BFGL-NGS-16925-0_T_R_1544345763	GTGCCTGGCACAAGGGAAGTGGCTGTTGTCGCACTTGTTCGGGGCTCTGGCTATGAGAGG[A/G]AAGTTGGGGCCCTCACTCCTGTGAGATGGAGAGCCCTCCTAGGAGCTCATTTCTGGTCCC
ARS-BFGL-NGS-30559	Discovery	rs110282071	ss86312018	A/G	A/G	8	51719716	UMD3.1	ARS-BFGL-NGS-30559-0_T_F_1544347535	CCAAGTAGCTGATGATCTTGGTCTTAACTTGTCATCTCAACAGGGATAAATGCTGGTCTA[A/G]GTGAAATGTTTTGGCCTCCCAAGAAGAAAGGAAGTAGAACAACCCAAGGTAGCATGGATA
ARS-BFGL-NGS-37680	Discovery	rs43773249	ss86315576	A/C	A/C	8	55778679	UMD3.1	ARS-BFGL-NGS-37680-0_B_R_1511681890	ATGGGTGTAATAAATCCATGTAATGTTCTGCCTTTAAGATAAAGTCCAGACTCCTTAACC[A/C]AGAACCAAGGTCTGTGGGGCCCTGGGGTCTACATATCTCTCACCTCACATCTCACTCTTC
ARS-BFGL-NGS-44611	Discovery	rs110839325	ss86294603	A/G	A/G	8	60225941	UMD3.1	ARS-BFGL-NGS-44611-1_B_R_2128295788	GCTGCAAAGATCCTGGCAGTTGGAAGAAGTGCACCCAGTGGGAAGGCCTGGGGGCCAGGG[A/G]TGTCTGAGGCTCTGTGTGCCTCCCCACTGCTACCTAAGTGCTTATCTCCACATTCTCCCA
ARS-BFGL-NGS-71395	Discovery	rs42216771	ss86301528	A/G	A/G	8	24707157	UMD3.1	ARS-BFGL-NGS-71395-0_B_R_1511672420	TCTGTGTCCATGCCCTTTTTAAGAAAGGAAGAAATTAGGGGCCAAAAAGCACTAGTTCTT[A/G]GTTGCAGATCCGTTGAGACTGAAGATCTTTTCCTTGACTTATCAATCAAGATGGCGGACA
ARS-BFGL-NGS-92824	Discovery	rs111025793	ss86323461	A/G	A/G	8	111713971	UMD3.1	ARS-BFGL-NGS-92824-0_B_R_1511689454	AAACACAGGGCAACAGTCAGCGCCTGCGTCATCGCTAGTTCTGAGTACGTGGCCTGGCAC[A/G]TGGATGGTGCTCAGCCTGTGGGAGCTTTCTGGAAAGTCCGTGAGTGGAGGTCGTGGTCCG
BTA-101724-NO-RS	Discovery	rs41616289	ss61512891	T/C	A/G	8	93896073	UMD3.1	BTA-101724-no-rs-0_B_F_1511597053	TTCCCCAGGTACCTGATGCCTCAGAGGACCCTACCAACCGGTAAATACCTCCAGCCCCTC[A/G]CCTTTGTGGTGGCAGACTTGAGATTTGTTGTCCCGTCTCTCTGCTTGTCTGCCTTGTGAA
BTA-80863-NO-RS	Discovery	rs41658821	ss61559804	G/C	C/G	8	22130988	UMD3.1	BTA-80863-no-rs-0_B_F_1511551119	TTATATTTTAACTCTTTATACAACAAATATAAAATGAATATTTCTCTAACTTAAAATAAT[C/G]GCAATATTATCCTATGTACTCCTAAAATAGAAATCAAGTAATTACAGAATTTACATAGGT
BTB-00095699	Discovery	rs43303344	ss65219838	T/C	A/G	8	15534805	UMD3.1	BTB-00095699-0_T_R_1544353945	ATTCTCTTTTCCAGAAAAAGTGAAGGCACTTCAGTTGGATCCAAGGCTAGAATCTGGGAG[A/G]AATTGAATAATCCAAGGAATTATTTTCACCAGTTAAAAAGAAAGTATGAGATCATTCCCT
BTB-00285653	Discovery	rs43499009	ss65409130	T/C	A/G	8	30036807	UMD3.1	BTB-00285653-0_T_R_1511581890	TGACACAAGGATGGAAGGAAGAAAGGCTGGAAAACTTTGCTTTGAACACTTCAACTGATC[A/G]TTTTCTCTGTCACAGCACACGGACTAACAGACTCCTCAAGTGTCGCAAGTCAAACTTTCC
BTB-00431734	Discovery	rs43640778	ss65554940	A/G	A/G	8	110042671	UMD3.1	BTB-00431734-0_B_R_1511580629	AACATTTTGCCTTTTGAAAGTACAGAGGGATAAAAGCTAGTTTTAAACTTCATGTATACC[A/G]TATGCCTTGTAATGTGTTGTGTGTCTTCTGCTATAGCCTCATATTGTTAGCGTCTGAAGT
BTB-01109703	Discovery	rs42264490	ss63545166	A/G	A/G	8	26899147	UMD3.1	BTB-01109703-0_T_F_1544357833	ATCTATAAAAGATAATTGTGTACCTCTGAGTCTCTGGAACCTGGCCAAAGCCTAAGAATC[A/G]CTGATCAGGGACTGATAACGGGCACATTAAACTAAACAAAGGCGAGTTCAAGAACATGAA

SNP name	Group	rs	ss	Forward A/B alleles	Top A/B alleles	Chromosome	Position	Assembly	Illumina Probe ID	Genomic flanking sequence
BTB-01276763	Discovery	rs42400277	ss63951620	A/C	A/C	8	3798414	UMD3.1	BTB-01276763-0_T_F_1511617542	CACTCCCAGTATATGTTTTGCAAGATAAGATAGTGAATGGTCATGCAAGAAGGCTGGTTT[A/C]GACAGGGACAGAGCAAAGGACAAAGTAAGTGATCAAACAGGTAATCCCACTCTGGGACTG
BTB-01944037	Discovery	rs43053569	ss64960232	A/G	A/G	8	108772548	UMD3.1	BTB-01944037-0_B_R_1511543993	CACAGAGCCAGGAGCTGGGATATTCATGGTCCCGAGTGCGACAGCCACCACAAGGCCCTC[A/G]GAGTTAGTCAATGAAAGGCTGGAAGCTAATACTAATTGCTGGCTTATGCATCTCTTCTGC
HAPMAP24224-BTA-93350	Discovery	rs41606159	ss61505413	A/C	A/C	8	65960156	UMD3.1	Hapmap24224-BTA-93350-0_T_F_1510717348	TAACTTCCAAACTTATATTATGAGGCTAGCATCACCCTGTTACCAAAAAAGAGAAGGACA[A/C]GAGAAGAAAAAATACAAACCAGTATCACTGATAAACATAGAAGTAAAACTTCTCAACAAG
HAPMAP39690-BTA-82650	Discovery	rs41590921	ss61492973	A/C	A/C	8	104829510	UMD3.1	Hapmap39690-BTA-82650-0_B_R_1511627385	AAAGCTATCATCATAGTGCATACAATTTTATATCCTGCTTTTTTCACCTAACACTGAAAC[A/C]GCAGTAATTTTAGCCAGCTACATGGACGTCAGTAATTGTGTTTTATTGGCTCCATGGTTG
HAPMAP45337-BTA-109277	Discovery	rs41618019	ss61516718	G/C	C/G	8	4955143	UMD3.1	Hapmap45337-BTA-109277-0_B_F_1509286771	GCTACATAACTCTTCATCATTATGTCCTCCACGATTTTAACATCTGTCTTATTCCTTCTT[C/G]GATATAGCGTTTGAGATCTGGCATTTCAGTGCTTCACGTAAGAGTCTTCTGTGGGCTTTT
HAPMAP49049-BTA-119736	Discovery	rs41571461	ss61475068	T/C	A/G	8	55892688	UMD3.1	Hapmap49049-BTA-119736-0_T_R_1511602078	CAGGAGACAGGATAGCAGGTGGGAAAAGTAGGTTCTATGCCGAGTGACCTTGAGAGATTT[A/G]GTAACCGAACTATATCCCAACAGGAACACAACAAGTGCTTCAAGCAAACACAGCTGGTAT
HAPMAP49333-BTA-82773	Discovery	rs41609510	ss61510981	A/G	A/G	8	109321402	UMD3.1	Hapmap49333-BTA-82773-0_T_F_1509295000	ATTGATTTACCTCCACATAGTCTCCCAATACACTCCCAACTCTACCCTTAACCGAAGTTT[A/G]GGAGAAGGGAAAAAATGAGGACAGTGGCTTTTGGGAGTTCTCATATCTCTGGGAACCCTA
HAPMAP57430-RS29016504	Discovery	rs29016504	ss38333008	A/G	A/G	8	1154683	UMD3.1	Hapmap57430-rs29016504-0_B_R_1509324941	TCTGAACAGATCCACTCTGTTAAGCCTGTGTCTGTGGATGAAGCATAAACAGAGGTCCCC[A/G]TGCTGGTACACAAGCCTCACTGCCTAAGAAGCGACATATTCAAATGTCCGCGTTAACTAT
HAPMAP58894-RS29013940	Discovery	rs29013940	ss38322841	T/C	A/G	8	99957737	UMD3.1	Hapmap58894-rs29013940-0_B_F_1509290019	ATTTAAACTTGGCAACCACAGGTCTATTCTTCAGATTGTGAAACCAATATTCAAATAGCT[A/G]ATGAAGTGGATTCCCCATCGAATGACACAGGTTGCATTGAAGATGCCGACCACAGATTTG
HAPMAP58990-RS29020862	Discovery	rs29020862	ss38328553	T/C	A/G	8	9962339	UMD3.1	Hapmap58990-rs29020862-0_B_F_1509309093	GTCACTTAGTTTCATGATTTTAAAATTACTTTTCCTAACTTAAAAAGCTTTTCCGAGACT[A/G]ACAGTTGCTTAGTTTTTCACTTATATCACTACCCGGGAGGGGGCCGTAGGCACTTTGAAA
UA-IFASA-6154	Discovery	rs41590851	ss117964020	T/C	A/G	8	104158107	UMD3.1	UA-IFASA-6154-0_B_F_1511686662	TCCTCAATTTTGATTCCATTCCCAGCAGGTTCTTCTTGGGGTGGGGACCTCTCTGAGAAC[A/G]TCATCATAGAGGGTGAGTCTCAAAAGTTCATAGAAGCAAGAATGCTCCAGTTCTTCTAGT
ARS-BFGL-BAC-14220	Discovery	rs109677705	ss105240266	A/G	A/G	11	13914771	UMD3.1	ARS-BFGL-BAC-14220-0_B_R_1511664100	ATGCCTCAGGCTGGAGGTTGGGAGCTCTGCGTGTTAGACCCATCTGGTCTCAGTTCTGCC[A/G]TGTCCTCAGGCAAGTTATTCATCTGGTTTCTGTTTGGATGTTGGCCTTGACTTAGGAATG

SNP name	Group	rs	ss	Forward A/B alleles	Top A/B alleles	Chromosome	Position	Assembly	Illumina Probe ID	Genomic flanking sequence
ARS-BFGL-NGS-10436	Discovery	rs109880920	ss86289220	T/C	A/G	11	26982927	UMD3.1	ARS-BFGL-NGS-10436-0_T_R_1511673221	TTATTTTGGCAAATTGTATAGAAGCAACGACCACATGAACCCATCACTAGGGCTCCTTGT[A/G]GGCCTGGGGAGGGGCCTGTGGGGGGGAGGGGGGTCTCAATATTTAGGCATCATTAGCTTG
ARS-BFGL-NGS-109752	Discovery	rs109391965	ss86335949	T/G	A/C	11	95322986	UMD3.1	ARS-BFGL-NGS-109752-0_T_R_1511652505	GTCAGGATGAATCCCATGTCCATGGCTCTCCATTCCCTGGACTGGCTTTATTTCAAGGCC[A/C]CTACCCGCCCCGGGCACCGTGTTTGTTACCTGCCTCCCAGAATGGACCGTGACTCCGTGT
ARS-BFGL-NGS-111691	Discovery	rs41597473	ss86340494	T/G	A/C	11	44844492	UMD3.1	ARS-BFGL-NGS-111691-0_B_F_1511638000	TCTGGGAGCTCCTGTGGTTGGATTTGGGCTTGTTCATGGACCCAGCCCCTGATGAACCCG[A/C]AAGGGGCCCCAAAACCAGATGCTGTGCTCAGTTCTTCATTTTATTTTTACCAAGACATCT
ARS-BFGL-NGS-112130	Discovery	rs109194444	ss86335992	T/C	A/G	11	102548124	UMD3.1	ARS-BFGL-NGS-112130-0_T_R_1511638829	TTGGGAGTGCAGTCTTAGCCACTAGCCACCTAGTCTTTCTTGTAAGGACACTTTTCATTC[A/G]ATTTAGGCCCCATCCCCTAAATCTCATCTCAAGAGCCTTCGTTTAATTACATCTGTAAAG
ARS-BFGL-NGS-114087	Discovery	rs110374329	ss86336971	A/G	A/G	11	64057850	UMD3.1	ARS-BFGL-NGS-114087-0_T_F_1511647909	CTTGCCTGAAATCAAGACGACTGAGTATGAAGACCTGGGACGGACAGGAGGAAAAGGAGC[A/G]GGAAGAACGAGGCCACCACGCATGGTAGAACCACCTCGTGATTTCGTCAGTGCAGTAAAA
ARS-BFGL-NGS-116589	Discovery	rs109391018	ss86341591	A/G	A/G	11	100901534	UMD3.1	ARS-BFGL-NGS-116589-0_T_F_1511654293	CAGCAGTGACACAGCCAGCTATGTGATTTCCAACATTTTGGCCAAAAGTGATCATCTCCA[A/G]TATTGCAATCTTGCCAAATTCTTTTATTTTACCATAACCTGTGGAGAAGGAAATGGCCAC
ARS-BFGL-NGS-117672	Discovery	rs109144352	ss86339235	T/C	A/G	11	31332721	UMD3.1	ARS-BFGL-NGS-117672-0_B_F_1511653664	GGAGGGCTGGAGTTCATGTGGTTGCAGAGTCGGACATGGCCTAGCGACTAACCAACAATG[A/G]CAATGTACATGTTACTTTGACTCCCTGAGTTATGCTGTCCAATACGGTAAGCACTATCCT
ARS-BFGL-NGS-24591	Discovery	rs110734659	ss86314415	A/G	A/G	11	42330073	UMD3.1	ARS-BFGL-NGS-24591-0_B_R_1511656038	AAACAGGAGACAGTGATCAGATCCAGCAATACTAGTCATAATGATTTTCTTTTCCTCTGA[A/G]GAGACAGGCCTGGGCTGGATTTCTGCTCTGTTTAATTACAAGTGGACATATTATCGCAAA
ARS-BFGL-NGS-28681	Discovery	rs109732456	ss86289852	T/C	A/G	11	101522062	UMD3.1	ARS-BFGL-NGS-28681-0_T_R_1511665277	CAGTTTCCCCCTCTCTAAAATGGGGATAATGCTACCTTGCATAATGCTGGAGCATCCAGA[A/G]CTGTGTGGCCCAGGCGGGCACACTGAAGGGTCAAGAAAGGAAGACAGAGCTTCTTGGGCT
ARS-BFGL-NGS-41117	Discovery	rs109850773	ss86321402	T/C	A/G	11	6724678	UMD3.1	ARS-BFGL-NGS-41117-v2-1_B_F_1924248854	GTCACAATTAAGATCCAACCCGCTGCACCTAAGGAGCTCGCGTGTCACAACTAAGGCCCG[A/G]TGCAGGCAAATGAGCAGATAAACGTTAAAGAAAAAGCAGCCCCTGAGCAGTTTAATCAAG
ARS-BFGL-NGS-5662	Discovery	rs110152455	ss86292486	T/C	A/G	11	83028893	UMD3.1	ARS-BFGL-NGS-5662-0_T_R_1511646541	ATTAATCATTGATCACTTTGGAGAGAGAATTTCATGATTAATAACCAGACTGAAAGGTCT[A/G]AGTGGCCTTGACCTTTTGTCCTGTTGTCTTATAAAAATCTTTCTAATCTCTGTTTTTCAT
ARS-BFGL-NGS-66512	Discovery	rs110248771	ss86297019	A/G	A/G	11	36983331	UMD3.1	ARS-BFGL-NGS-66512-0_T_F_1511657289	GCAAGTGGTTTCAGGGCAGGCACTCTGCTATAGGGGTTTAGCTAGACTAAGGAAAAAATC[A/G]CTTTCCACAGGCTAGTGGGGCCAGCGTATTCCTTCAGGATTACGTTTATTTTTATCTAAA

SNP name	Group	rs	ss	Forward A/B alleles	Top A/B alleles	Chromosome	Position	Assembly	Illumina Probe ID	Genomic flanking sequence
ARS-BFGL-NGS-68030	Discovery	rs43659115	ss86298860	T/C	A/G	11	1901787	UMD3.1	ARS-BFGL-NGS-68030-0_T_R_1511657421	TGCCTGAACTCATTTTGAAAACACCAAAATGGACAGGCCTAAGTTAGATTTAAGTTGATT[A/G]AGGTTTTTGGGGAAGTAAAAAGCAGTCAGCCTTAGGACTTCCCTGGTGGGCCAGTGGTTA
ARS-BFGL-NGS-68850	Discovery	rs42274427	ss86298915	T/C	A/G	11	5252617	UMD3.1	ARS-BFGL-NGS-68850-0_T_R_1511656561	CACACAAGACCAGAGCTGGGACAACATCCTTCTGCCATATTTTGTTGGCCAAAGCAGTTA[A/G]CAAACCAGCTGAGATTCAGAGGTTGAGAGACAGCCTTTCCTGACAGAGGCAGGGCAATGT
BTA-99659-NO-RS	Discovery	rs41596833	ss61497406	T/C	A/G	11	30945111	UMD3.1	BTA-99659-no-rs-0_B_F_1511576291	TTTATTAGTTAGTTATCAATTAAGTACAGAATAAAAAAAATCATATATAAATACAATGTG[A/G]AACAACACACATACATGCATTAACACACACAGAACCATGAAGGAAATAAAGGATAAATCA
BTB-00458773	Discovery	rs43663587	ss65581933	A/C	A/C	11	10753131	UMD3.1	BTB-00458773-0_B_R_1511574455	ATAAATGATAAATAATAACCAAGAAAGGTTTGAAAGAAAATAACAAAGAAATATTTAATT[A/C]AGGAGATATTAAAACCTGGAGTTATATTTAAAATGCTGAGATACTGGTGCAGAAATTGGC
BTB-00474688	Discovery	rs43680229	ss65597810	T/C	A/G	11	50431031	UMD3.1	BTB-00474688-0_B_F_1511574523	CATTGACTTTTAGATAAGTCAGTTAATGTGCTTGGGATTAGGTTTCCTGTTTTGAAGAAT[A/G]AAGACTTTGAAATCAGGAAATTTCTGAAGGGTCTCTTAAAGCCCCAATTTTTATGCTTGT
BTB-01397485	Discovery	rs42520028	ss64192391	T/C	A/G	11	33236456	UMD3.1	BTB-01397485-0_T_R_1511613640	CACTTTGGGCATGACTTGGATTTGCATAACAGAAGTTCCTTTGGTTAAGCCTAGTTCTCT[A/G]TATTAGTAAGAACTCAGAGAAATGCCTTATGACTAGACAGGATCGATGGTATTGCCTGTG
BTB-01426876	Discovery	rs42552262	ss64251080	T/C	A/G	11	34482175	UMD3.1	BTB-01426876-0_B_F_1544360628	TGTCCCTGTGTTAGAATGATCAATAATCACTCATGCTTTCAGTTATGTATTTACCTCAAG[A/G]AGCAGAAATGATCTTTAGCCTAGTGTCAAATATTAAGATGTAGGCCCATGACCTTTTCCA
HAPMAP22963-BTA-91941	Discovery	rs41604980	ss61505330	T/G	A/C	11	1806374	UMD3.1	Hapmap22963-BTA-91941-0_T_R_1544359493	TATGGCCTGCAGTGTACATGTTTGATGAACAAGTAGTGAGTCAATGTGTGAATGACCAAG[A/C]GTGTGGATAAGTGAGGGAGTGAATGAATGATCCGTCTTCCTGGCTGTCATGGTGTCTCTC
HAPMAP33373-BTA-148341	Discovery	rs110590483	ss117970339	A/G	A/G	11	39437937	UMD3.1	Hapmap33373-BTA-148341-0_T_F_1544359173	GAAAATACACCATTTGTGCAACATGATAGAGTAAGAGTTTGTTCTTTTTCCTCTGGTAAA[A/G]AAGTTTGATTAAATTTCTCATAAGTTGGTCTATTTTGGGCTGCAGTCATGAAATTTTTGT
HAPMAP43815-BTA-23051	Discovery	rs41626586	ss61528544	T/C	A/G	11	44583035	UMD3.1	Hapmap43815-BTA-23051-0_B_F_1511566041	TTCCATCAAGATGAATAGTAAATTGTTTTCATTGTAGTAAGTAAAAACTAGTCAGTGAAC[A/G]TTTACTGATCATCTCTAGTAACAGCAAATTCTGAGTTTAGGTATAGCCAGGCTATTTTTT
HAPMAP48543-BTA-98093	Discovery	rs41668260	ss61568981	A/G	A/G	11	59319163	UMD3.1	Hapmap48543-BTA-98093-0_B_R_1511577685	ATTCCAAAAATGGGCTATTGCAGAGACCAGAGTGATGTGAGTGAGGCACTTAGGGGGCAA[A/G]ATTTAAGATTGCATTCACACTAGGGGGCTGAACCACCACTTGTACTGCCCTTATGAGAAC
ARS-BFGL-BAC-11276	Discovery	rs110053849	ss105237002	A/G	A/G	13	2153905	UMD3.1	ARS-BFGL-BAC-11276-0_B_R_1511657522	AAACTAGCCTTATTGAGGTGAATTCCTCCTGTACCAAGTTTAATACATGTCACGAAAGAT[A/G]GGATGTGTTGGTGATTATGGAAAGGTAGGGGGGATGTGGAATTATATCTTCTGATGTCAG

SNP name	Group	rs	ss	Forward A/B alleles	Top A/B alleles	Chromosome	Position	Assembly	Illumina Probe ID	Genomic flanking sequence
ARS-BFGL-NGS-103379	Discovery	rs42580320	ss86330316	T/C	A/G	13	3764223	UMD3.1	ARS-BFGL-NGS-103379-0_T_R_1511673423	GAGAAAGGGTGAAGGCAAATGCAGTAACCCAGCAAGTAACGCAAGGCCAGGGAGGAGCAC[A/G]GGAGGGACCAGGCAGGGCTGGAGGCTGGAGGAAACGCACGCGCTCCTGCCCTTGTGTGGG
ARS-BFGL-NGS-108308	Discovery	rs109618623	ss86289651	T/G	A/C	13	28999095	UMD3.1	ARS-BFGL-NGS-108308-0_T_R_1511677715	TGAGTCAACGTATTCAAGCCTGGATGACTTCTGTAGGGCCTTTTGCTTCTACAGCTGGAA[A/C]GGTAAAACTGAACTTCATGGAAAATCCTAATAAATGTAAGAACATAATGTATAAATGAGT
ARS-BFGL-NGS-111777	Discovery	rs109436345	ss86340999	T/C	A/G	13	35029615	UMD3.1	ARS-BFGL-NGS-111777-0_T_R_1511638753	GAGCTGGGTGGGTTGGTGGGGAGGCATTCCAGATAGAGAAGAGGATGCAAAAGGCAGAAT[A/G]GGGAGGCCGTTGGTGCCTGGAACAGAGGCTGCCACTGTGGCTGGAGCACGGGGTGCAGAG
ARS-BFGL-NGS-112625	Discovery	rs109238076	ss86337827	T/C	A/G	13	74579327	UMD3.1	ARS-BFGL-NGS-112625-0_B_F_1511648424	TTTCACCCACTAGGGTGCCAGCCATCACAGTGCCCAGGAGGACAAGAAGGGCTGCAGAGA[A/G]ACAGAAGGCCTTCCAGGAGGGCTCCTGAGGTAAGCTGAGAGTGACTGAGCTTCTCACACC
ARS-BFGL-NGS-11585	Discovery	rs109418164	ss86324125	A/C	A/C	13	17407043	UMD3.1	ARS-BFGL-NGS-11585-0_T_F_1511680535	TCCCCTCTTAACTTTCTCCCAACCTTTAACCCGAAACCCCTGTCTTCACCGTGACCGTGC[A/C]TGGCCCGGAATGCATAAAGTAATTAGCCTCCAATTAAAATAAATAAATTTATATTTTAAA
ARS-BFGL-NGS-118453	Discovery	rs110768475	ss86339738	A/G	A/G	13	74179277	UMD3.1	ARS-BFGL-NGS-118453-0_B_R_1511653594	AGCCGGCCTCACCCTCCGGCTGGGCTGTGCTGAACAGATGAGGTCGGGGTCAGCTCCTTC[A/G]CCATGCTTTCAGCCTTACGCGGGCCACCCCTGGCTTCCAGAGCTATTAGTGATGTCCTGG
ARS-BFGL-NGS-22052	Discovery	rs43708211	ss86340346	T/C	A/G	13	61559991	UMD3.1	ARS-BFGL-NGS-22052-0_B_F_1511650196	GTGACCCTGGGCAGCCTTAGAATTCAACCCAAGGCTGAGTCTAGCCTACAGTTCTGCCCT[A/G]TAGTTCAGCCCAGCCTATGGCCTTATCTAAGTGTTAAACACAGCTTGTGGCCCTACCCAG
ARS-BFGL-NGS-28202	Discovery	rs110452193	ss86314069	A/G	A/G	13	38359460	UMD3.1	ARS-BFGL-NGS-28202-0_T_F_1511656087	AAAGGAAGAACTTGGTCTAACCGTGTTGGGAAATTGGTCTAACTTTGTTGACCCTGGCCC[A/G]GAGAACACGTGGTGTCGGAAGGTTTAAAGCTGCTCCCAAGCTTGAGGGGCAGACACCTCA
ARS-BFGL-NGS-29144	Discovery	rs41689621	ss86280267	C/G	C/G	13	40606621	UMD3.1	ARS-BFGL-NGS-29144-0_T_F_1511665803	AAGGTTCAAGGTCAAATCATGCTCAATTGTATGTACTATGTAAAGGCAAAAAACCCACTA[C/G]GTGACTTGGGGCCATGGATCATCCCAGAAGACACTTCGTTGACCAAAGCAAGGAGGAGTG
ARS-BFGL-NGS-36793	Discovery	rs111027602	ss86273810	A/G	A/G	13	80239131	UMD3.1	ARS-BFGL-NGS-36793-0_T_F_1511674227	ACAGGAAAGCAGAGCTTATACTCTTCGTGTTTGCAAGCGGGATTTCGGGCCAAGCAGCAC[A/G]GAAACCTTGAAACAGTATTTTGTGTGTGTGCGTCATGTTTCTCCCAGGCAAAGGTGCTGG
ARS-BFGL-NGS-36852	Discovery	rs110779743	ss86296804	A/G	A/G	13	37210394	UMD3.1	ARS-BFGL-NGS-36852-0_T_F_1511681003	AGGATTAAGCCTGGAGGCAGAAGACAAATGGTTACCAGCCTACTTGGTGATTTGGAACAC[A/G]GGCCCCAGCGTAGCGTGGTTCCCAAGTGGCCGGCAGGGCTGAAATTATGGTTCTTCACAG
ARS-BFGL-NGS-55042	Discovery	rs109631491	ss86285379	A/G	A/G	13	45510831	UMD3.1	ARS-BFGL-NGS-55042-0_B_R_1511642286	GAGCTTCTCGGAGCTGGGGTCACCATTGGTAACGGGCCAGAGCTGCCCCACAAATTGGGG[A/G]TGCTGCTCTGCTGCTAAGTTTGTGCCCAGTGGTCAGGCGGTGGTTGGGATGACTCTGAGC

SNP name	Group	rs	ss	Forward A/B alleles	Top A/B alleles	Chromosome	Position	Assembly	Illumina Probe ID	Genomic flanking sequence
ARS-BFGL-NGS-81428	Discovery	rs110541329	ss86311680	A/G	A/G	13	20735468	UMD3.1	ARS-BFGL-NGS-81428-0_B_R_1511676410	AGCTTCTGCATTGGAAACTTGGCATCGTAACCACTGGATGGCCAGGAAAGTCCAGTAAAT[A/G]CACTTGGAAATGTCACCCTCCTGCTTCATTAGGTAAAGAAGCATTTGGAAAGCAATTACG
ARS-BFGL-NGS-84327	Discovery	rs41681601	ss86314715	T/C	A/G	13	5774000	UMD3.1	ARS-BFGL-NGS-84327-0_B_F_1511690432	TGGTACATACTTGGAGAAGGGTGGTCCGGCAGTGGGGGATCACCTGGGGGCTTGTGAGCA[A/G]CGTAGAACCCCGGGCCCCAGTCAGACTCACAGACTCACAGTCTCTGCAGGATTGAAGCCT
ARS-BFGL-NGS-92946	Discovery	rs41679621	ss86323130	T/C	A/G	13	16399441	UMD3.1	ARS-BFGL-NGS-92946-0_T_R_1511691623	TGACAGAAGGGGTTAGGAGCAGCCACAGAGGGAATTGAAGAATGTGGACTCAGTCGTCGT[A/G]GGGGTGTAGGCTGAGGCCCCGCTTACCCCTGCAGCTCAGTTGACTGCAGTGTCATCACAG
BTA-102818-NO-RS	Discovery	rs41612098	ss61513418	A/C	A/C	13	83632355	UMD3.1	BTA-102818-no-rs-0_T_F_1511596590	ATTCCTGAGCCTCTGTTCTTTGTCCCTGTGCTCCACTGCCTAAATCTTCAATTACAGATG[A/C]TTTTTTAGAGTAAATTATAGTATATCCACACAAAGGAACATTGTACAGTTATAAAAAGTA
BTB-01124378	Discovery	rs42283006	ss63589116	A/G	A/G	13	6600008	UMD3.1	BTB-01124378-0_B_R_1511612899	CTTAAAGCTTTGAGTAGATAATAGGAATTGTGATGACTTAGCATTTATACATATGTATGC[A/G]TGACTTAGTGTTCGGATGTATATTTAGGATCAGTGGAAGATCAAAATAGAGAGGTGAGTC
BTB-01141508	Discovery	rs42300745	ss63640372	T/G	A/C	13	679009	UMD3.1	BTB-01141508-0_T_R_1544355623	TTGTAATAACAATGTAAAGAAGGAGAATTTAAGATTGAAAGTGCTAACAGGATAAAGGAA[A/C]ATTATGCACAAGAAAAGGTACAATTACTGATGAAGATAACAAGTTATAGACTAATGAATA
BTB-01141770	Discovery	rs42303607	ss63641158	T/C	A/G	13	777430	UMD3.1	BTB-01141770-0_T_R_1544349343	CTTCTTGTGGACTAGCCTTAGCTATAAAGTTGCTTGGCAGGTTTGGGTTCCCAAGAGTGT[A/G]AGATTAAAGCTACAGACAAAAGTTAGACAAAGAACTGTAGTACTCACACATAGGGGGAAT
BTB-01656080	Discovery	rs42771121	ss64674033	A/G	A/G	13	51621880	UMD3.1	BTB-01656080-0_B_R_1544359918	AAAGCAAGGGCGCATGCCAGGGAAATATGCAGTAACACCCTTTGCCACAGAATTACGGGG[A/G]AAAAAAGGCAAGGAGGCGGAGAGAACCTGCTGGACCACCTTCTTATTAACACCGGGAGGC
HAPMAP23870-BTA-128381	Discovery	rs41690422	ss117970697	T/G	A/C	13	43427963	UMD3.1	Hapmap23870-BTA-128381-0_B_F_1509277687	GTTTAATCACGTAGGATTTTACATGTGTCAAGCGTTCAATATAAACATTTCTTGGGCTTA[A/C]TGCTTCCAAAGGCCTGGAGGAGACTTCTACAAAGGGACAAACTGGGAGAAGGGAGCCAGA
HAPMAP26649-BTA-128159	Discovery	rs41679704	ss117970743	T/C	A/G	13	19734286	UMD3.1	Hapmap26649-BTA-128159-0_T_R_1509296202	CTGAGTCTGTGAACTGCATATTCTTCCCTTTCCTCTGTGTTCTGTCAACTCAAAAATGTG[A/G]GTTAATAATGCCTTCCTCCCAGCCTCTTGAGATTTTCTGTGTAGATTGATGATAATAAAA
HAPMAP50266-BTA-13664	Discovery	rs29018622	ss38335716	A/G	A/G	13	18536707	UMD3.1	Hapmap50266-BTA-13664-0_B_R_1511602957	TAGAATTATGTTTTATAAAATGATGGGGAAGTCAGTCTCATTGCCTTTGGTAAAATCAAC[A/G]GATTGATTATCTTCTTGGCAATGAGCCAGCTAATTATCATCTACAGCAAATGTGGGGCAA
HAPMAP54459-RS29016219	Discovery	rs29016219	ss38332719	A/G	A/G	13	12436043	UMD3.1	Hapmap54459-rs29016219-0_T_F_1509330608	TTTTAAGATAAAAGATATTATGGAGTACATGCTGATGGAATAATCCTCTAGAGCAGATGG[A/G]TTTTACTTTCATTGTTGCTACTAAGGCCAAAAGCTATGATAATGTATAAATAGCAGTTCA

SNP name	Group	rs	ss	Forward A/B alleles	Top A/B alleles	Chromosome	Position	Assembly	Illumina Probe ID	Genomic flanking sequence
HAPMAP57586-RS29015232	Discovery	rs29015232	ss38326931	T/C	A/G	13	6396120	UMD3.1	Hapmap57586-rs29015232-0_B_F_1509325299	GCAGCAATCAAAGCTCTCTCTGTTTCTAAATCTTTGTTTTATCTATCTTCCCCTGACCCC[A/G]ATTCAACCACCAAAGGGGCTAATTCAAAGATAATGACAAAGGGCATATAGTTTCTGCCTC
HAPMAP59420-SS46527113	Discovery	rs41255656	ss46527113	A/G	A/G	13	35533998	UMD3.1	Hapmap59420-ss46527113-0_T_F_1511547718	CCATCATGCCTGAGTGCTAATTGCTCTTCTCCCATTAGTGGCTGTGGAATTTTCTGCACC[A/G]CTACTTTTTATGGAATCCAACAAGTTTTTAATTCTTTCACTTGCAGGCTTCTTTTTCTTC
ARS-BFGL-NGS-103691	Discovery	rs109895974	ss86330883	A/G	A/G	19	53473744	UMD3.1	ARS-BFGL-NGS-103691-0_T_F_1511670483	AAGACTTGACTCCACGGACGTTTTAAAAAAAGAGTGAACGTCAGAATTCGGATGGAATCC[A/G]ATGCCCTGGCCCCACGTGCGTCTGCGTGCTTGGCTTTGCGGGAGGCTGTGTGCCCTAGGC
ARS-BFGL-NGS-1097	Discovery	rs110474375	ss86274483	T/C	A/G	19	34836416	UMD3.1	ARS-BFGL-NGS-1097-0_B_F_1511679994	TGTGCCGGGTCACAGGTGGTAGAGGAAGAGCCGGGACCTGACCAAGTACTTGTGGATCCT[A/G]TGCTGTGGCCCATTAGTTCCACGCTCATCTCCTGGGAAAAGGGGAGAACTCAGCGTTGGC
ARS-BFGL-NGS-112392	Discovery	rs41925019	ss86338991	T/G	A/C	19	56341205	UMD3.1	ARS-BFGL-NGS-112392-0_T_R_1511647715	CTCTGTACCAAGGCTTGACCGCTTGCTTCCAGATGAGGACTAAGAACTGAGGCCCACCTC[A/C]CTGACCCATCTCACGTACCCTCCCACCCCTGGTGGGGATCCCCCGACTCCTTCAGAATAG
ARS-BFGL-NGS-114067	Discovery	rs110706642	ss86339580	T/C	A/G	19	46117735	UMD3.1	ARS-BFGL-NGS-114067-0_B_F_1511648466	TCTGCCGTGAAATTGTGTCGGGAAATGTTAATGAGCAGCTGGTTGAGGCCTCAGTACTTT[A/G]TGGATAAAAGTTTAAACTTGTTTGGTTCTCCTTTGCTTAGGTTGGCTTTTTTCCCCTGAC
ARS-BFGL-NGS-12595	Discovery	rs109076010	ss86292850	T/C	A/G	19	55101341	UMD3.1	ARS-BFGL-NGS-12595-0_T_R_1511682675	GAAGGACACACACAAAAGATGGCACCTTCGGGCAGTGGCTGTGGCTGGCCTGAATGCCTT[A/G]AAAGTGCAAGTCGCTCAGTCGTGTCCGACTCTTTGTGACCCCACAGACTGTCCATGGAAT
ARS-BFGL-NGS-16504	Discovery	rs110727417	ss86305593	A/C	A/C	19	55967853	UMD3.1	ARS-BFGL-NGS-16504-0_B_R_1544345388	CAGGCGGTGAGAGACGACGGAGGACTCTGGTGTCCAGAACCCTCGTTCCTCTTGGCCCCA[A/C]AGACGGCAGGAAGGCTCCATGTGGGTCGGACCTAGTAACTGTGCAGCAAGCTTCCCCCAA
ARS-BFGL-NGS-28504	Discovery	rs109751693	ss86285474	A/G	A/G	19	44403315	UMD3.1	ARS-BFGL-NGS-28504-0_T_F_1511665453	GCCACGATGAGGAATCAAAGGCAGATGACATTCAGAAATTTAGGCAAACGGTTATCAGTG[A/G]GGACAGCTGCCAGTTGGGAGGCCTGTGAACTAATCCACATGAGATGAAGAAGAAAATAAA
ARS-BFGL-NGS-32769	Discovery	rs110865656	ss86300067	T/C	A/G	19	22346456	UMD3.1	ARS-BFGL-NGS-32769-0_T_R_1511665755	GTTGTGAAAGCTTTTCCCAGCTGCCGCCCTGAAACTCCTTCCCGGCAAGAGTAGGTGGAT[A/G]TATTGATACATCTCTGGATGGGGCCAGGGGGACCCGGGGATGTGCGGATGCATTTAGCTT
ARS-BFGL-NGS-32846	Discovery	rs109282926	ss86335598	A/G	A/G	19	63560230	UMD3.1	ARS-BFGL-NGS-32846-0_T_F_1511675469	CTTGAAATGGGGGTGCTTTCTCCCTGGGTAACTGTGTGCTTGGCGCCTCATCCGAGGACC[A/G]CTGACGGCCCGCTAGAGCACACTCCAGAGCCAGACGCACCAGGTGTGTGGGCGCGGGGTC
ARS-BFGL-NGS-33000	Discovery	rs110046289	ss86296211	A/G	A/G	19	10542886	UMD3.1	ARS-BFGL-NGS-33000-0_B_R_1544347646	CTCTCTGAGCATGGCCAAGCACAAAAGAAGGACTGACACTGAAGGTGCCAGGCCCTGGGG[A/G]CTGCAAGTGGGTCGATCTGGTTTCTTTGAAACGTGGAGCAGAGGCAAGGTCAACGGACCC

SNP name	Group	rs	ss	Forward A/B alleles	Top A/B alleles	Chromosome	Position	Assembly	Illumina Probe ID	Genomic flanking sequence
ARS-BFGL-NGS-42338	Discovery	rs110407219	ss86295481	A/G	A/G	19	17326249	UMD3.1	ARS-BFGL-NGS-42338-0_T_F_1544350037	AGATATAAACCGTCCCTCATCTAGACCTTATTGGTCACAAAGGTGACATTTTTGGCCTCT[A/G]TCTTATTTACTCTTTTCCTCTTATTTTTCAAACGGCTTTGAACCCGGGCAGGAAAGAGGC
ARS-BFGL-NGS-45547	Discovery	rs42429829	ss86306230	A/G	A/G	19	62478817	UMD3.1	ARS-BFGL-NGS-45547-0_B_R_1511683056	AAATGCACACGAGCCTCACAAAGGCAGACCTGTGGGCCTTGGGTCAGAGGGCTTAGAAGC[A/G]AATTGAGAAAGATGAAAGGGTCACGTAGGGTCAGTCGGGGTCAGAGGCCATCAAGAGTGG
ARS-BFGL-NGS-6269	Discovery	rs110000667	ss86295403	A/G	A/G	19	29411883	UMD3.1	ARS-BFGL-NGS-6269-0_T_F_1511650625	AACTGAACTTTCAAGAACGCGAGTTCAAACATTTCTTCGGGCCGCACGCCTGTCATCACC[A/G]AGGATGAAAAACTGAGCGGTGCTCAGAGCTATCTGAGGGCTGTTGGGGCAACAAGGCCGC
ARS-BFGL-NGS-64451	Discovery	rs110466604	ss86294159	T/C	A/G	19	60407194	UMD3.1	ARS-BFGL-NGS-64451-0_B_F_1511650804	TCAGGCACACTCACACCAGAGCTTAGCTAACAAGAACCCAAGTCTGTGTTGTTGACTTGG[A/G]AGCCTTGGAGGCCCACCGTTCCAAGAAGGAAGGGTGGGCTTTTCAGTGGTGTGTGTGTGT
ARS-BFGL-NGS-73980	Discovery	rs110514489	ss86304368	T/C	A/G	19	51419352	UMD3.1	ARS-BFGL-NGS-73980-0_T_R_1511671939	TGCTTGCTCCTCCCTCACACCTTTAACCTTGGCAGCAGGAGTGTTGCCACTGCGGAGAAG[A/G]CTGGCCCTTGAAAGGATAGAGGGACAGCTCTGACATGGGAGTCCTAGGCAGCACTCCCAG
BTA-118486-NO-RS	Discovery	rs41572555	ss61474763	T/C	A/G	19	21716537	UMD3.1	BTA-118486-no-rs-0_T_R_1511614140	TGATTATTACAAAAAAGCTGCCATGATCAATCCTCTACATGTCTTTTGGTAGACATATAC[A/G]TTCATTTATCTTGGTATGTACCTAGAAGTATAAATGCTGATCATAGGGTATATATATATT
BTB-00736933	Discovery	rs41895988	ss62513857	A/C	A/C	19	8280552	UMD3.1	BTB-00736933-0_B_R_1544355214	ACTCAGGCTTGAAAGCAAAGTAACGAGTCTGGCTGAAGCTGCCTGGGTAGCAGAGTGATC[A/C]CTATGGCAGAGGAATCACCGCACTACAACAAAAGCTGAAAGCATGCAGTGCCGGATGCCT
HAPMAP26973-BTA-147422	Discovery	rs110392985	ss117972526	T/C	A/G	19	12340926	UMD3.1	Hapmap26973-BTA-147422-0_T_R_1510727894	TTTCACGTGCAAAATACGTTTACCCCATACAAACATCCCTGGAAATCTCAGCACATTACA[A/G]CATCAGTTCTTAACAGTAAAATCTCTTTAAAATATCATCAGACTCAAAGTTCACATCTCC
HAPMAP40170-BTA-20573	Discovery	rs41623352	ss117972620	T/G	A/C	19	19175183	UMD3.1	Hapmap40170-BTA-20573-0_B_F_1511628169	GGGCATTTGCTGTGTTTTATTAAAGCAATTCATGCTTGAATAGACTAAAAACATTTTACT[A/C]TTTTCATCATTTTCTACCTTCAGTGTAAGACGATTTCAAAAAGTAAGACTGGTCTAGTAT
HAPMAP42556-BTA-45815	Discovery	rs41636899	ss61540754	T/C	A/G	19	51445450	UMD3.1	Hapmap42556-BTA-45815-0_T_R_1509324776	TCGGGTAACTTTGACAGTGCAAAACAAATTGATTGACTTTCTAATAGATACAGGTGCCAC[A/G]TGTTCTGTGGTAAACATCAGTGCAGGGTGGACCAGAAAACATCTTAGTCTGTGCCAGTCA
HAPMAP46758-BTA-108921	Discovery	rs41571534	ss61472509	A/G	A/G	19	26182297	UMD3.1	Hapmap46758-BTA-108921-0_T_F_1511576932	ATGAACTCACAATTTCCTCCACTGATTTCATCATGAGATGGGAGACAAGCTGCATCCCAA[A/G]GCTTTATTGCTCTGCGGCAACCTCTCCTTGAACAAACCATCATCTTGCCTCCTCCCAGCC
HAPMAP57648-RS29022376	Discovery	rs29022376	ss38330872	A/G	A/G	19	22709090	UMD3.1	Hapmap57648-rs29022376-0_B_R_1511547537	CAATACAGTAAGCGCGTGAGCCGATACGCTTTGAAACTTAACTTCCACAGCTTCCCAAGC[A/G]TTGAAATGGACAGCTTGAACAGAGGTAGAAAGAGAGGTGACTAGAGGAGTGGGTTAGAAG

SNP name	Group	rs	ss	Forward A/B alleles	Top A/B alleles	Chromosome	Position	Assembly	Illumina Probe ID	Genomic flanking sequence
HAPMAP58587-SS46526997	Discovery	rs41255542	ss46526997	A/G	A/G	19	24972085	UMD3.1	Hapmap58587-ss46526997-0_T_F_1511547114	AGAGTAGCTCCCGCGTGTGAATTAGTAAGCTTAAATTCCAAAGTTGAACTGGCACCTCCA[A/G]AGAGTGAGATAAAAAACACTTTGTATCAAAGCTGTGATTAAAAAAATGTAAAAGTTAAAC
UA-IFASA-7987	Discovery	rs41640012	ss117965319	A/G	A/G	19	18799689	UMD3.1	UA-IFASA-7987-0_T_F_1511687285	GCTCTGGGCTAAGTGTTCAGAGAGGGCAAGTCCCTGCCAAAAGGACACACAGCTCTGGGA[A/G]CAGGTCTAGAACTCATACCCAGGTCTGCTGCATCACGTGTGGCACTGGTCTGGAGGCAGC
UA-IFASA-8658	Discovery	rs41665355	ss117965384	T/G	A/C	19	47415500	UMD3.1	UA-IFASA-8658-1_T_R_2128295787	TTAGGCATGCATTAAAATCCCGGTTTTGTAGTTTTTTTGATCATGTGTCATGGAACTATA[A/C]CAGGCTTTTCTCCAGGGCCTTCTTTCTTTTTACAAAATTTGTTTATTTTTTAATTGAAGG
ARS-BFGL-NGS-104603	Discovery	rs110316813	ss86335025	A/G	A/G	21	2918184	UMD3.1	ARS-BFGL-NGS-104603-0_B_R_1544344492	CGGCTTCCCACAGAAGCCACAGAGGCATCTCAAGGGCCTGTGTCCTTTCCTGGAGAAAGT[A/G]TCCAGAAGTTATGTCCCTGTGCAGTCCCTGAGGCAACAGTACACTCTCAGAGAGCTGTGC
ARS-BFGL-NGS-109907	Discovery	rs110229647	ss86337107	T/C	A/G	21	12539191	UMD3.1	ARS-BFGL-NGS-109907-0_B_F_1511638976	TAACCCATCTTCGTCAAGGGCATTCCCAGAGCCCAGCTAGTCTCATCCGGTGCACCTTGC[A/G]GGCCGTTGTTATGTAGAACAGGCTCCCACTGTATTGAGCCAAAGAGCTGCCTGCTCAGGC
ARS-BFGL-NGS-114538	Discovery	rs109726203	ss86339325	T/C	A/G	21	70521657	UMD3.1	ARS-BFGL-NGS-114538-0_T_R_1511647835	TCAGGGCATGGAATCTGGAGTGAATCCCGGGAGAGCAGGACAAGGACTTGTCAAGGGGGG[A/G]CGGGGTACCCAGGCCCCCAGGGAGGAGAGGATTCCCCATGCACGGTCCTAGGGCTTCCAG
ARS-BFGL-NGS-115346	Discovery	rs109826517	ss86339596	T/C	A/G	21	67515244	UMD3.1	ARS-BFGL-NGS-115346-0_B_F_1511647540	TGATTTATATGATCCAAATGAATGAATGAAAGACCTACAGCTGGGCCTTAGGGACCCAGC[A/G]ATGAACTTGGGTAGAGGACGAGGGGTGGGCAAGTAACCCAGAGTGTCTGGAAGCCTGAGG
ARS-BFGL-NGS-115598	Discovery	rs110842067	ss86340340	T/C	A/G	21	62709685	UMD3.1	ARS-BFGL-NGS-115598-0_T_R_1511654275	GAGAGGCTCATGGACTGCATGAGAGACAGACACACAGACGGCTCCAACACAGCATGACTG[A/G]TGCTGTCACTAAGGGGCCAAAGGCCATTGCTGGGGCACCGAGGAGAGACCTAGCCCTCTG
ARS-BFGL-NGS-117619	Discovery	rs110351726	ss86338139	A/G	A/G	21	31035761	UMD3.1	ARS-BFGL-NGS-117619-0_T_F_1511653035	AATCCTTTGTGATCACTATTGCCATTGCCCTAAAAGAGGCCCTCTCTTTTGAACTATTAC[A/G]GCAATGATGTGAGGCGGGGCATGGCATATAATTTCCTAGTTACAGATGGGAAACCCAAGG
ARS-BFGL-NGS-13360	Discovery	rs42267294	ss86340145	A/G	A/G	21	30118274	UMD3.1	ARS-BFGL-NGS-13360-0_T_F_1511639523	ACAGGTTACACAGCTTAGAAATGGAGAATTCACTTTTACTTCATGGCCTCATTCACATTC[A/G]TAAAGTAGGCTGCCCCACCTCTGTGTTAGAGGAACTGCAGGGGCTCTGGGCAGCCCAGAA
ARS-BFGL-NGS-16249	Discovery	rs109396729	ss86298800	T/C	A/G	21	10944434	UMD3.1	ARS-BFGL-NGS-16249-0_B_F_1511639348	CCTGTTTGGACCCTCTCTAGGAGGGGATGAACCTCATCCTGATGGCCCGACAGAAATCTG[A/G]AGACAGCTCTTTTGTATCATTCTTGTCTTGACTCAAATGTCAATCCCCTAGGAAGGCCTT
ARS-BFGL-NGS-22685	Discovery	rs110574752	ss86306574	T/C	A/G	21	46877052	UMD3.1	ARS-BFGL-NGS-22685-v2-1_T_R_1924247540	CACGCTATGGAGCGTATGGTTAAGCAAGGGATTGGGGGGACATGAGGTAGGTTCAGAGAC[A/G]CAGTGTGAGCATGGGGCAGGCCACCAGGCAGAGCCACAGACTCTGGCGAAGGTCCAGGAT

SNP name	Group	rs	ss	Forward A/B alleles	Top A/B alleles	Chromosome	Position	Assembly	Illumina Probe ID	Genomic flanking sequence
ARS-BFGL-NGS-23813	Discovery	rs109453755	ss86326298	A/C	A/C	21	42540260	UMD3.1	ARS-BFGL-NGS-23813-0_B_R_1544346514	CCTATATGGTTAGTAATTTGACATTTGAGAATTATGTTACATGGAGTGAAATGGCCGTTC[A/C]CATTGTTTCAGTGTGTAGGACACTGCCACTCTTGCCTCATGTTTTAACTTAAATGTTGAG
ARS-BFGL-NGS-25959	Discovery	rs109290113	ss86298390	T/C	A/G	21	64354251	UMD3.1	ARS-BFGL-NGS-25959-0_T_R_1511656249	CCGAATGCAGAAGAAGAATCTGGAGTCAATGGCTACGGCAAGAGAAAGAGACCCCTGGCC[A/G]CCTTGGGTCACTGGAAACCTCACCCCTTCTTCCCTCCTTCTTGTTTAGTCACTCAGTCTT
ARS-BFGL-NGS-2644	Discovery	rs110204931	ss86308993	T/C	A/G	21	70608408	UMD3.1	ARS-BFGL-NGS-2644-0_T_R_1511660597	GACCCCAGACCCTGCTTAGCAATCCCACCTGTTAAGGGCGTGTGGCCCACCATCCGCCAA[A/G]CCTCCTCCCTTGTGTCCCCAACCCCCAATCTCGCCGAGCCCTGCCTCCAATGCCAGAAAG
ARS-BFGL-NGS-37484	Discovery	rs110976149	ss86325665	T/C	A/G	21	68683196	UMD3.1	ARS-BFGL-NGS-37484-0_B_F_1544347466	CGCGGAAAGCGTCTCCCTCCTAGTGGGCTTTTCCGCAGGCCAAGTCCAGCTTATAGACCC[A/G]ATCAAAAAAGAAACTAGCAAACTATTTAATGAGGAAGTAAGTAGCACCCTGTCTTAGCTG
ARS-BFGL-NGS-44686	Discovery	rs110105912	ss86311678	T/C	A/G	21	9190518	UMD3.1	ARS-BFGL-NGS-44686-0_T_R_1544350625	GGCCATCAGCCCCATTTACTCCTAGGATATCAGAGGGGCCTGGGGCTGTTCCTATAAGGC[A/G]AGGGCATCCAAGGGCATTCGGGAACCTCCATCTCAGCTTCCGTGCTCGTCTGGCCAAGGC
ARS-BFGL-NGS-8229	Discovery	rs41970500	ss86321762	T/C	A/G	21	22156279	UMD3.1	ARS-BFGL-NGS-8229-0_B_F_1511685614	TTACAGTGGAGCCTCGGTGATGGTTTCAGATAGACTCCCAGGCCGCAGTGCTGTTTCTGC[A/G]GGAACTGTTTTCTTTGCTCTCAGGTGCCAGGAACAAAATCTGCATGTCTTTCTTGTGCCG
BTB-00806621	Discovery	rs43725759	ss62700450	A/G	A/G	21	18912588	UMD3.1	BTB-00806621-0_B_R_1511584271	ATGTGATAGCCATCTGTGGGACAGAGTGGGGGCCACGACACGTGGAGAAGGCAGGCATCA[A/G]TTGAATCCTAATTTTTCCAAAGCAGCAAAACATAGATTCTGGAAACTTCTAGCTCATAAA
BTB-01303828	Discovery	rs42428520	ss64005684	T/C	A/G	21	37143433	UMD3.1	BTB-01303828-0_T_R_1544355703	TAATATGACCTCCCAAGTACTAAATACGTATCCATTTCTATACCACAGTTTCAAAATTCT[A/G]TAAAACATTTTAAAGTGCATTTTGAGGGAAAAACATGTGAAATTACACATTTAAAAAATT
BTB-01375460	Discovery	rs42499708	ss64148441	A/G	A/G	21	51325226	UMD3.1	BTB-01375460-0_B_R_1544360150	AGAGGAAGTCATCTAGAAGATACAACCACCCACAGACCCAGGATCTGGACCAAACCCATC[A/G]GAGGTTCTTCATCCCTCATATATGTTGGAATTTACATTCTCTCTACTGGTCCCACAGTGG
HAPMAP26512-BTA-52638	Discovery	rs41608374	ss61502567	T/C	A/G	21	55483469	UMD3.1	Hapmap26512-BTA-52638-0_B_F_1510715283	TATTTGTTGCTTTCAAGCGTGAGGAATTAGCTTTCTGTATATGTTTAAGAGAGCTTTTAA[A/G]TTTTCTCTGGCCGTCAGATATTTGAGGCCGAGAAGGAACGTTTTGTTCTTGAGGGGATAG
HAPMAP38899-BTA-52139	Discovery	rs41641697	ss61544199	A/C	A/C	21	36492508	UMD3.1	Hapmap38899-BTA-52139-0_B_R_1509288055	TCACCATGACCTTCAAAAATGAAGACCTACTATTTGAAAGTTTTGGACAGTAGCTACTTT[A/C]TTTTTAAAATCAAAACTCAACCAGTGTCCTGATAATCAAAGAAGACTTGTCTTAGGGTAG
HAPMAP52072-RS29018920	Discovery	rs29018920	ss38336017	A/C	A/C	21	2333804	UMD3.1	Hapmap52072-rs29018920-0_T_F_1544359377	ATGATTTGATGAAACAGCTCAGCCATGTGACTTACAATCTGGGTGTTTTCCCTCCATGCA[A/C]CTATCCACGGGTCAGCAGCATCTCAAGGCTGCATGTGCATGGTGGTAGGGAGGCTGATGA

SNP name	Group	rs	ss	Forward A/B alleles	Top A/B alleles	Chromosome	Position	Assembly	Illumina Probe ID	Genomic flanking sequence
HAPMAP53212-RS29015272	Discovery	rs29015272	ss38326971	T/C	A/G	21	25704052	UMD3.1	Hapmap53212-rs29015272-0_B_F_1511601897	AGTGGCTTACAGAAAAGTCCAGAAACTGGTACTCCCTCACAGGGCCAGGACAAGGGTGAA[A/G]GAAGTGAGACATACACCCCAGATGCAAAATTTAGGATGTGCATGCTCAGTCATTAAGTCT
HAPMAP57137-RS29011525	Discovery	rs29011525	ss38325820	T/C	A/G	21	18454966	UMD3.1	Hapmap57137-rs29011525-0_T_R_1509328136	GGAAAATATTAATTGAAATGAACTAATCCACTCAGTACTGAGTGCAGAACAAACTTGGGC[A/G]TCAAGCTGGAGAAGGAAGTTCCACTCCCTGTTTGCCTCTCAGATCCAGGTAACCAAGTCT