

**Table S1:** List of genetic markers used in this study, their coordinates, and primer sequences.

Name(type*)	Chr_5 coords.	scaffold_12875 coords.	Forward primer	Reverse primer
<b>St (VM)</b>	4519096-4520743	922609-924256	N/A	N/A
<b>SSR58 (MS)</b>	6545087-6545300	19509634-19509847	TGCCTAGCATTTGGCACTTA	AAAAGAGCGTGGCAAAGAAA
<b>SSR95 (MS)</b>	9335798-9336014	16718920-16719136	TGTGCCTGCTGACAAAACAT	ACACTGCCTGCTTGCAATTA
<b>SSR138 (MS)</b>	10017486-10017694	16037240-16037448	TCGTACCAATGTTGTCAATGC	ACAGGAAGTGGGTGGAAGTG
<b>SSR139 (MS)</b>	10361473-10361687	15693247-15693461	CAAAGATGGAGGAAGCCTCA	CCAGCGCACACTCATAGATT
<b>SSR157 (MS)</b>	10504504-10504720	15550214-15550430	TTTCGTTTGCAATTCCTGTG	GCGTTCGAACCTGAACAAAT
<b>SSR155 (MS)</b>	10604771-10604976	15449958-15450163	TGGGACAAATGTGCCAAATA	ATATGCTCGGTGCGGAGATTC
<b>SSR154 (MS)</b>	10621121-10621371	15433563-15433813	CGGGCAGAATCAACTCGTAG	CCGCAGACACTGAACCAAC
<b>SSR150 (MS)</b>	10864161-10864552	15190382-15190773	GCTATGTTTGCTGGCAGTGA	ATTGCCAAAGCGCATAAATA
<b>SSR149 (MS)</b>	10955634-10955876	15099058-15099300	CAGTACATCGGGCAATTGTG	TGTGGGTGAAGTCAATGTTGT
<b>SSR148 (MS)</b>	11054476-11054716	15000218-15000458	ACGTGCCACATTGCTCATA	ACAACCTGTCGCGCACTAAA
<b>SSR170 (MS)</b>	11062637-11062844	14992090-14992297	TTTTTCGTTTTCTCCGTTTTT	ATCTAAGCAAGCGGGTTTCA
<b>SSR169 (MS)</b>	11067738-11067901	14987033-14987196	CATCAAGGAGCTGGCCTATC	ACTTCTCCGCGTACAACCTG
<b>SSR168 (MS)</b>	11080856-11080998	14973936-14974078	CTCCTGGCTGAAAAGCAAAC	CGGCAAAACAAATGACAATC
<b>SSR165 (MS)</b>	11083472-11083698	14971236-14971462	TTTGACCAGGGCATGACATA	AAGCACAAGCAAAGCACACAC
<b>SSR167 (MS)</b>	11086448-11086593	14968341-14968486	TTTCAATTTCCGCTTGATTT	TATAGCCGGCTCGTTGAAGT
<b>pF10 (SNP)</b>	11089640-11089848	14965086-14965294	AGCTTTAGCTTCCCTTGTC	TTGAAATTTGCGCGTCTAC
<b>pE10 (SNP)</b>	11090368-11090570	14964364-14964566	CGCGATCGCAGCTATTCTT	TCCAGGTGTCGGTGAAGTGT
<b>pD10 (SNP)</b>	11091748-11091976	14962958-14963186	TCGACGACGACATATTGAGC	GTCTGGCTTTCATCTAAGAGCA
<b>pC10 (SNP)</b>	11093207-11093456	14961478-14961727	AGGGATCGGCCAATTATC	AAACCCCTCAAGGACAACCTG
<b>pB10 (SNP)</b>	11095456-11095683	14959251-14959478	TACGCAACGCCTATCTGAAA	TCAAGCTGTCGTGTAATCC
<b>pA10 (SNP)</b>	11096841-11097053	14957881-14958093	GATCGTCGCGACTTTCATA	CGATGGGCAATAATATGGAG
<b>SSR164 (MS)</b>	11099701-11099906	14955028-14955233	TTGTGTTGTGCTGATGCTG	GCAAAGCAAAGCTGCGTA
<b>SSR147 (MS)</b>	11129608-11129795	14925139-14925326	TTAGGCGCTGCTACTCACAC	GCGTACAGCTGATAAGCACAG
<b>SSR163 (MS)</b>	11179710-11179876	14875058-14875224	TCAATGCACGAAAATTGGTC	GTTGCGGTAAAATGGATTCCG
<b>SSR162 (MS)</b>	11205769-11205921	14849013-14849165	AGGTAATGTTGGCCAATGC	TTCGAAAGGCATTTTGTGTA
<b>SSR146 (MS)</b>	11245420-11245584	14809350-14809514	GTGACAATTGTTGCGGAGTG	CGCCGTCTGAAAAGAGAAAAC
<b>SSR23 (MS)</b>	11745404-11745612	14309322-14309530	AAACTGGCAGATGGGCATAG	CCACGATTTGAGAAGCACAA
<b>SSR84 (MS)</b>	13073885-13074040	12980894-12981049	CAGCATGGAGCATCTGTGTC	TGGAAGGGATGTCATGGACT
<b>B (VM)</b>	13512463-13562691	12492265-12542347	N/A	N/A
<b>SSR60 (MS)</b>	15084664-15084836	10970098-10970270	CAAAAGTGTGCTTGATGG	GGGTTCTAGCCCCAAATAA
<b>SSR90 (MS)</b>	16077689-16077938	9976996-9977245	ACTTTGCCAAGCTGTGAAGG	GCGTCTCGTATGCTCTGCTA
<b>SSR116 (MS)</b>	17269263-17269460	8785474-8785671	CCCCATTGAAAGTTCATCCA	GTCAGGAGGCCACATTGTTT
<b>SSR118 (MS)</b>	17695072-17695271	8359663-8359862	GCCCAAAATCTTAGCCAAA	TGGCTTGGGTACTGTTTCT
<b>SSR111 (MS)</b>	17849127-17849347	8205587-8205807	TTTGATTGTTTCCCTCACTCG	TGTCATTGCTCTGGCAAAA
<b>SSR88 (MS)</b>	18040111-18040269	8014665-8014823	CCAAAAGGCAGGACCATAAA	TTGCGTAGACACCACAAGGT
<b>SSR124 (MS)</b>	18512607-18512820	7542114-7542327	CGCTTAAACGATCCAACGAT	GTTTATAACCGGTGCTCGAT
<b>SSR126 (MS)</b>	19673479-19673688	6381246-6381455	AATTGCCAAAGAAACCACCA	AGCGGCTCGTCTGCTGTA
<b>SSR128 (MS)</b>	19839381-19839552	6215382-6215553	ACGACTTGTGCTGATAGGC	CTGTTCTGGAACATGCAAGC
<b>SSR129 (MS)</b>	20026180-20026357	6028577-6028754	ACCATGAGCAGGCATCAGA	CCGGCAATCGTCTTTAACT
<b>SSR130 (MS)</b>	20129136-20129321	5925613-5925798	ACACAGGTCCCAACACAACA	CAGAAAATGATGTGCGTCTG
<b>SSR133 (MS)</b>	20473430-20473645	5581289-5581504	CTCGCAACTTGGCAGACATA	TGCCCAAATGTAAGTGTATC
<b>SSR134 (MS)</b>	20601881-20602035	5452899-5453053	GCACCGCCATACCCATAAT	ATTTGGCCACCCATTAGACC
<b>SSR136 (MS)</b>	20858440-20858624	5196310-5196494	ATGCCAAACAATGCTAAACA	TCCCGATGATCATTGTCTT
<b>SSR62 (MS)</b>	21069407-21069701	4985233-4985527	TGTTAGTTGGCAGCGCAAT	GATTATGCGTGTGCGAGTCC

\*VM: visible marker, MS: microsatellite marker, SNP: single nucleotide polymorphism.