

**Table S1** Primers sequence for amplifying candidate genes

Primer name	Primer	Sequences (5'-3')
Bra020876	Forward	ATGGGGCAGCTTCCTTCACA
	Reverse	CTAAATTGAAGACAGGTCT
Bra020861-1	Forward	ATGGTGCCGAGATGTTCAAG
	Reverse	AGTAACCAGCAGGAGGCA
Bra020861-2	Forward	AAGCCTGACGACGTTGACGC
	Reverse	GCTATGTGAAGAAACAAAGCT
Bra020861-3	Forward	CTGCTTTTCAACGGTGAAC
	Reverse	ACGAGATTAGTCATATTCC
Bra020861-4	Forward	GAAATTGGATCTCTCCAGAT
	Reverse	CTAAACCGGACTAAACCAGA

**Table S2** Primers sequence for qRT-PCR of two candidate genes

Primer name	Primer	Sequences (5'-3')
Bra020876-RT	Forward	TTCTCAGGCTCCCTTCCTAATA
	Reverse	CACTTATTGGCCCTGAGAGATT
Bra020861-RT	Forward	CTGAATCGAGAAGCAGTAGACC
	Reverse	CCGTGGCTCTGTAAGTAAATA

**Table S3** InDel and SSR primers sequence information

Marker name	Primer	Sequences (5'-3')
ZYF8-2	Forward	TCCGGTTTTTAATTGCGAGT
	Reverse	AGATTTGTAGGGGTTTTAAGAGTTC
snq8-6	Forward	CATTCGCTTCTCCACACAAA
	Reverse	AAAATGCCTCGTGTGCGAGTT
snq8-12	Forward	ACGAAGGATCAAGGACGATG
	Reverse	TTTTGTAAGTTGTGCCGTCG
ZYF8-16	Forward	TCTGCACTCACTTGCTCCAC
	Reverse	CAGCACCCATCGATCACTTA
sau192	Forward	TCCCTCCTCTCTACGTCTTCTTC
	Reverse	CTTCTCTGTAACGGGCTTTGAC
Acmp08-6	Forward	CCATGACTAACTGAACCCTCGT
	Reverse	GGTGTGTGATTGTAGGGACCA
ZYF8-38	Forward	ACAGCTCCTCTTCCTCCTCC
	Reverse	GAAAGCTGTTCTCCACGAGC
ZYF8-45	Forward	CGACCCCTTCATTAGTTGA
	Reverse	CTTCGTTTGCAACTTCCTCC
snq8-49	Forward	CGTGGTACATGAGCATCGTT
	Reverse	TTTTGAACCTTTGTTGTCTCCA
331	Forward	TTTTGGCCAAGATCGGTCGA
	Reverse	TCCTAGGCAAAAACCGGACC
sau339	Forward	CGGCGTTAAGGGTTTTAGCG
	Reverse	TGAGGATCGGTTTTTCGGGTG
333	Forward	ACCTCATACGATGGTCTTCTGT
	Reverse	TTTTCTCTGGGGGCATGCTT
sau332-1	Forward	ACGCTGGTAGATATGTGGTCA
	Reverse	TCCCCCTTCAATGGAACCAC
Acmp08-3	Forward	GCCATGCCAGGTTTGCTTTT
	Reverse	AGTTCCAAAGCCGATTTCGT

(a)

*Bra020876*

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12A   GAGTTATCCGGAGAGTTGCCTGGTTTTAATTATGTCTATGATCTTCAAGTGTC AAGCTT
377   GAGTTATCCGGAGAGTTGCCTGGTTTTAATTATGTCTATGATCTTCAAGTGTC AAGCTT
*****

12A   AGCAACAACAGATTCTCAGGTTCACTTCCCAATAACTTGTTGAAAGGTGACTCTTTGCTT
377   AGCAACAACAGATTCTCAGGTTCACTTCCCAATAACTTGTTGAAAGGTGACTCTTTGCTT
*****

12A   TTAGCGACGTTGGATTTAAGTGGCAACAATCTCTCAGGTATGCTCTTAGCTAGAGAGTGG
377   TTAGCGACGTTGGATTTAAGTGGCAACAATCTCTCAGGTATGCTCTTAGCTAGAGAGTGG
*****

12A   GGATTGTTATATGCTTAATGGTGGCACCAAGAAAAC TAAAAATCTAACTCTTTTGTGTTGT
377   GGATTGTTATATGCTTAATGGTGGCACCAAGAAAAC TAAAAATCTAACTCTTTTGTGTTGT
*****

12A   GTGGGAGAGCTGCAGTTTCTGGATGATTCTATCAAAC TACTCCAGAGGAGTTGTGAGG
377   GTGGGAGAGCTGCAGTTTCTGGATGATTCTATCAAAC TACTCCAGAGGAGTTGTGAGG
*****

12A   GCACCAGCTGAAGTCCTGGGAAGAAGTAGCCACGGGACTTCTTACAGAGCAACGCTTGAT
377   GCACCAGCTGAAGTCCTGGGAAGAAGTAGCCACGGGACTTCTTACAGAGCAACGCTTGAT
*****

12A   AACGGAGTGTTTCTAACC GTGAGGTGGCTAAGAGAAGGCGTTGCAAAGCAGAGAAAGGAG
377   AACGGAGTGTTTCTAACC GTGAGGTGGCTAAGAGAAGGCGTTGCAAAGCAGAGAAAGGAG
*****

12A   AAGGTGGTGTGATTTAACGGATTGGGTTAGGTTGCGTGTGCTGAAGGTCGTGGTCCGG
377   AAGGTGGTGTGATTTAACGGATTGGGTTAGGTTGCGTGTGCTGAAGGTCGTGGTCCGG
*****

12A   AATGCTTTGACTCGGTGCTGACACAGGAGATGGGAAGTGATCCTGTTACAGAGAAAGGGA
377   AATGCTTTGACTCGGTGCTGACACAGGAGATGGGAAGTGATCCTGTTACAGAGAAAGGGA
** *****

12A   CGAAAGAGTTCTTGGGATTGCCTTGAGGTGTATAAGATCTGTGTCTGAGAGA 3173
377   CGAAAGAGTTCTTGGGATTGCCTTGAGGTGTATAAGATCTGTGTCTGAGAGA 3173
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**Figure S1a** *Bra020876* gene sequence differences between 12A and 377.

(b)

*Bra020861*

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12A      -AAAGGGCAGTGCAAGCTTGCATGCCTGCAGGTCGACGATTACGAGATTAGTCATATTCC
377      AAAAGGTCAGTGCAAGCTTGCATGCCTGCAGGTCGACGAT-----
          *****

12A      CAATAGAAGAGGAAATCTCCACAAGGCTTGAGCATTCACTGAGATCCAATTCCTTGAGAT
377      -----

12A      TGGTCATATTCCCAACGGGGAGCTCCACAAGGCTTGAGCATTCACTGAGATCCAATTTCT
377      -----

12A      TGAGATTGGTCATATTTCCAATAGAAAAAGAGAGCCGTACAACGCTTGAGCATTGGGAGA
377      -----

12A      GATTCAACTTCTCAAGATTAGTCATATTACTAATAGAAGAGGGGACTTCCATAAGGCTTG
377      -----TACGAGATTAGTCATATTCCCAATAGAAGAGGAAATCTCCACAAGGCTTG
          * ***** * ***** * **** *****

12A      AGCACAGCTTGAGATTCAATTTCTTGAGATTAGTCATATTCCCAATAGAAGAGGAAATCT
377      AGCATCCACTGAGATCCAAATCTTGAGATTAGTCATATTCCCA-----AGGTGAGCT
          ****      ***** *** ***** ***** *** * **

12A      AGGGGGATGTGCTGCAAGGCGATTAAGTTGGGTAACGCCAGGGTTTTCCAGTCACGACG
377      AGGGGGATGTGCTGCAAGGCGATTAAGTTGGGTAACGCCAGGGTTTTCCAGTCACGACG
          *****

12A      TTGTAAACGACGGCCAGTGCCAAGCTTGCATGCCTGCAGGTCGACGAT-----
377      TTGTAAACGACGGCCAGTGCCAAGCTTGCATGCCTGCAGGTCGACGATTATGGTGCCGA
          *****

12A      -----TCTCTAGAGGATCCCCGGG
377      GATGTTCAAGTGCCACAACCATGCCTCCTGCTGGTTACTAATCTCTAGAGGATCCCCGGG
          *****

12A      TACCGAGCTCGAATTCGTAATCATGGTCATAGCTGTTTCCTGTGTGAAATTGTTATCCGC
377      TACCGAGCTCGAATTCGTAATCATGGTCATAGCTGTTTCCTGTGTGAAATTGTTATCCGC
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**Figure S1b** *Bra020861* gene sequence differences between 12A and 377.