SUPPLEMENTARY DATA

TABLE S1. Gene-specific primers for confirmation of *zmP4H* in HZ32

Gene[a]	Location[b]	Primer[c]
zmP4H1	78–1074	CCACGCGTGAGCTGCAA
		TTGAACCGGTGCATGACCTC
zmP4H2	101–1061	TCTCGCCGCGACATGAATTT
		GACTACTACGCAACACGCCA
zmP4H3	154–1052	CCTCTCCCGTGAGGCCGTGA
		TCGCCTTTGATGACGGGGCA
zmP4H4	172–931	ACTGGTGCCCACCACGGCTA
		AAGAAGAGCACGGCGTCGCC
zmP4H5	134–1118	CCCTCCCCCACACCACCCACCTG
		AGGCTCAAGCTTTGTACTCGTGGA
zmP4H6	93–742	CTTCTCGCCGCCATCGTGCT
		GGGCAGCTCCCGTGGAGACT
zmP4H7	176–843	TCCTTCGACCCATCCCGCGT
		CCCGGCTGCTTGACGGTGAG
zmP4H8	96–930	GTGTCCGCGCCAAATGCTGC
		CCTTCACATGGCCAAGGTCC
zmP4H9	315–1049	GGTGGAGGCAGCAAGGGCAG
		CGCGCAGCTCTCGTTCTCGT

[a] The name of *zmP4H* genes.

[b] The locaitons of the primers. The forward primer was located in the first exon and the reverse one was located in the last exon.

[c] The sequence of the primers.

TABLE S2. Gene-specific primers for RT-PCR in HZ32

Gene[a]	Name[b]	Primer[c]
zmP4H1	P1-RT-F	GACAGCAGGGTGCGGACAAGT
	P1-RT-R	CCACCATGCAGGCTTGTGGGAT
zmP4H3	P3-RT-F	GGCCGGAGATGCCTTACGGC
	P3-RT-R	ACCGCAGGACATTAAATGGCTCCC
zmP4H4	P4-RT-F	CAACGCCAAGGGTTGGGAGT
	P4-RT-R	GCGCAGCGCTCGCTCCTATC
zmP4H7	P7-RT-F	TTTCTGCAGCCACCTCCGTCT
	P7-RT-R	GCCGCCCAGGGCCTGATTATT
zmP4H9	P9-RT-F	CTCAAGAGGTCAGCGGTCGCC
	P9-RT-R	GGGCGTCACCTTTCCGTGGT
zmP4H2	P2-F	TCTCGCCGCGACATGAATTT
	P2-R	GACTACTACGCAACACGCCA
	P2-NM-RT-F	TGGTTCCTTCGACCCATCCC
	P2-NM-RT-R	ACCGGTTTAACTGCATATCCA
	P2-AS-RT-F	TCGCGCTGGCCAAGGACAAG
	P2-AS-RT-R	AAGAGCCATGGGCCCTGCAT
zmP4H6	P6-all-RT-F	CGGCGAGCGTCACTCAGCTC
	P6-all-RT-R	CGCCGACCATTTCTCGCCCT
zmP4H8	P8-RT-F	ATTGGCCAAGCCTCACATGG
	P8-RT-R	TCCTCTATAGTTGGGGTACTGCAAGG
actin	*actin-1*	TCACCCACACTGTGCCCATCTACGA
	actin-2	CAGCGGAACCGCTCATTGCCAATGG
γ-ubulin	*tubulin-1*	TCTCCAGGGTCCTCCATTCC
	tubulin-2	TGTCGTCCAACCTTACAACTCACT
adh-1	M-ADH1-RT-1	GAGCCGTTGGTCTTGCCGCT
	M-ADH1-RT-2	GAACGGGACGCTGTGCGTGA

[a] The names of *zmP4H* genes.

[b] The names of the primers.

[c] The sequence of the primers.

TABLE S3. Gene-specific primers for real time PCR in HZ32

Gene[a]	Name[b]	Primer[c]
zmP4H1	QT-zmP4H1-1	GCCTGCATGGTGGATGCCCA
	QT-zmP4H1-2	ACCGGTGCATGACCTCAGGT
zmP4H3	QT-zmP4H3-1	GCGTGGCCGGAGATGCCTTAC
	QT-zmP4H3-2	ACAAAGCACGAGGCTGCCAGC
zmP4H4	QT-zmP4H4-1	GCGGACAACGAGTCCGGCAA
	QT-zmP4H4-2	TCCGACTCACCACCGGGTCC
zmP4H7	QT-zmP4H7-1	TCCTTCGACCCATCCCGCGT
	QT-zmP4H7-2	GGTGGTCGCACTCCGCATCC
zmP4H9	QT-zmP4H9-1	TACCCGCATCACTCCCGCCA
	QT-zmP4H9-2	AGCCTCGTCGTCGCTGAGGA
zmP4H5	QT-zmP4H5-1	GGCCAGAAAGCGACCCGACC
	QT-zmP4H5-2	GCGCGGGAGATCACAGGTGG
actin	Actin1-Q-1	TTCTACGGGCGGTGCAGTGGA
	Actin1-Q-2	TACCACACGCCGCCGCATTTT
Adh	mzADH-Q-1	AGGTGGAGGTAGCGCCTCCG
	mzADH-Q-2	CGGTGTGGCAGAGCGAGGTG

[a] The names of *zmP4H* genes.

[b] The names of the primers.

[c] The sequence of the primers.

TABLE S4. General information for *zmP4H* genes

Gene	Gene Accession	Gene Length	ORF location	Deduced protein length
zmP4H1	JF901712	1278	111-1034	308
zmP4H2	JF901713	1182	113-1012	300
zmP4H2-1	JF901714	1196	113-727	205
zmP4H3	JF901715	1284	211-1095	295
zmP4H4	JF901716	1373	282-1106	275
zmP4H4-1	JF901717	1804	282-467	62
zmP4H4-2	JF901718	1518	282-905	208
zmP4H5	JF901719	1517	118-1114	309
zmP4H5-1	JF901720	1240	294-836	181
zmP4H5-2	JF901721	1043	256-375	40
zmP4H6	JF901722	1111	69-962	298
zmP4H6-1	JF901723	1350	63-431	123
zmP4H6-2	JF901724	1007	69-557	163
zmP4H6-3	JF901725	1174	63-689	209
zmP4H6-4	JF901726	953	69-506	146
zmP4H7	JF901727	1195	92-988	299
zmP4H8	JF901728	1359	106-1029	308
zmP4H8-1	JF901729	1449	106-1029	308
zmP4H8-2	JF901730	998	106-660	185
zmP4H8-3	JF901731	1146	106-672	189
zmP4H8-4	JF901732	1503	106-1029	308
zmP4H8-5	JF901733	1618	106-1029	308
zmP4H9	JF901734	1437	222-1148	309