

**Supplemental Table S1.** List of primers used for cloning and real-time RT-PCR analysis

Gene	Forward (F) and reverse (R) primers (5' to 3')	Amplicon (bp)
<b>Cloning</b>		
<i>TUA2</i>	(F) CCGAATTCAARTGYGGYATYAACTA + (R)oligo dT primer (R) TGGTGGCCAAACCCCTCACGGTCCCTTCTC + (F)SMART II primer	515 1,532
<i>TUA3</i>	(F) CCGAATTCAARTGYGGYATYAACTA + (R)oligo dT primer (R) GAATAGGAAACAAGTCGCAGTAGC + (F)SMART II primer	571 1,541
<i>TUA4</i>	(F) GAAGTTGGTGCTGAAGGTGT (R) CAAATACGAAGACAGACATAGTCTTGAG (R) CAAATACGAAGACAGACATAGTCTTGAG + (F)SMART II primer	495 1,592
<i>TUA5</i>	(F) GAAMGACCCACMTACACMAA (R) CAGTAGCTTTAGCATAACGAAAGAATAGG (F) ACATGCATGCGAGAGTGCATTTCGATCCA (R) CAGTAGCTTTAGCATAACGAAAGAATAGG	865 1,356
<i>TUA6</i>	(F) ATGAGGGAGATAATAAGCATAACATATTGGAC (R) CTAGTAATCTTCCTCCTCACCTTCCTC	1,350
<i>TUA7</i>	(F) ATGAGAGAGTGCATCTCAATCCACATTGG (R) TTACATGTATTCTCTCCATCATCGTCTTCC	1,356
<i>TUA8</i>	(F) ATGAGGGAGATAATAAGCATAACATATTGGAC (R) TCAGTAATCTTCGTCTCACCCCTCG	1,350
<b>RT-PCR</b>		
<i>TUA1</i>	(F) CTGATARTAGGRAGTGTACTTCTCTTTTGTG (R) GAGAAAATTARYAATAGGSCTCCAATCCCTTGTA	142
<i>TUA2</i>	(F) GTWATTAMCACCAGCAATCGAGAAGGACC (R) GTCGAMCTCGAAACCATAAAAAACATTAA	162
<i>TUA3</i>	(F) CTGCATTACCTGTTTGTGCTTGACACTT (R) TCATGCTTCAGAGACATAAATGTGTTC	186
<i>TUA4</i>	(F) CTTGCAATAGMATTTCATCTGGGAAATGGT (R) CTTCAAATACGAAGACAGACATAGTCTTG	156
<i>TUA5</i>	(F) CTTTCGTARTGGGTGTAGCCTAATATGATG (R) CACCTTYGAAACAATAAAAGCTTCAAATGG	126
<i>TUA7</i>	(F) GGAAGTTGTTCTGCCAATGGGCTC (R) CTTGTCCATCCAGTTACCTACAACC	94
<i>TUA6/8</i>	(F) GCGAGGAAACAGCAGTTGTATGTC + TUA6/8(R)	102 ( <i>TUA6</i> ); 100 ( <i>TUA8</i> )
<i>TUA6</i>	(F) GATTACAAGTTTGATCTCATGTATTCC + TUA6/8(R)	294
<i>TUA8</i>	(F) GACCACAAGTTTGATCTCATGTACTCT + TUA6/8(R)	292
-	TUA6/8(R) CAATTCACAGATCACTGACATGGA	-
<i>TUB1</i>	(R) ATTACAGCAAAAAGATGACAAC + TUB(F)	280
<i>TUB2</i>	(R) AAACCCTACATACTAAAGAAG + TUB(F)	237
<i>TUB3</i>	(R) TAACTCCACATATTGGAAAGC + TUB(F)	280
<i>TUB4</i>	(R) AACATTGCTTGAAAATAAATCC + TUB(F)	276
<i>TUB5/6</i>	(R) CCCAACTCCAAGCATTYTCAT + TUB(F)	198
<i>TUB7</i>	(R) ATTTGACCCCAACAACAGA + TUB(F)	250
<i>TUB8</i>	(R) TAGTTTGACCCCAATGAGA + TUB(F)	246
<i>TUB9</i>	(R) CACCAGAAACAACCTCATCCTT + TUB(F)	214
<i>TUB10</i>	(R) TCATGAGTGACCACAAAACA + TUB(F)	271
<i>TUB11</i>	(R) CATTACCGTCATCGTCATAAG + TUB(F)	128
<i>TUB12</i>	(R) ATCACACAAACATTCATCACTG + TUB(F)	261
<i>TUB13</i>	(R) CAGCAAGACTGCAAAATCGGT + TUB(F)	204
<i>TUB14</i>	(R) CCAACTCTACCATTCACTAC + TUB(F)	275
<i>TUB15</i>	(R) ATGTATGAAAAATAGCAGCAGC + TUB(F)	207
<i>TUB16</i>	(R) CATGCAGAATACGCTGTAAAAG + TUB(F)	213
<i>TUB17</i>	(R) GGAGCAAACATATACCTGTGC + TUB(F)	211
<i>TUB18</i>	(R) AGCATCGATAGGAATCGGATA + TUB(F)	222
<i>TUB19</i>	(R) TGATGAAATAGCACAGCACAGA + TUB(F)	192
<i>TUB20</i>	(R) GCGTTAAGGAAATAGCCACAAT + TUB(F)	192
-	TUB(F) TTGCAYTGGTAYACHGGNGARGG (consensus primer)	-

**Supplemental Table S2.** List of proteins and their GenBank accession numbers used in sequence alignment and phylogenetic analyses

Species	Protein Name	Accession No.
<b><math>\alpha</math>-tubulin</b>		
<i>Arabidopsis thaliana</i>	ArathTUA1	At1g64740
	ArathTUA2	At1g50010
	ArathTUA3	At5g19770
	ArathTUA4	At1g04820
	ArathTUA5	At5g19770
	ArathTUA6	At4g14960
<i>Betula pendula</i> (birch)	BetpeTUA	CAB66336
<i>Chlamydomonas reinhardtii</i> (green alga)	ChlreTUA2	AAN87017
<i>Eleusine indica</i> (goosegrass)	EleinTUA1	CAA06618
	EleinTUA2	O22348
	EleinTUA3	O22349
<i>Gossypium hirsutum</i> (cotton)	GoshiTUA2	AAQ92662
	GoshiTUA3	AAD50627
	GoshiTUA4	AAQ92663
	GoshiTUA5	AAD50629
<i>Hordeum vulgare</i> (barley)	HorvuTUA1	CAA67942
	HorvuTUA2	CAA69724
	HorvuTUA3	CAA10663
<i>Medicago truncatula</i> (barrel medic)	MedtrTUA3	ABN08980
	MedtrTUA1	ABE93145
	MedtrTUA2	ABE86411
<i>Oryza sativa</i> (rice)	OrysaTUA1	Os03g0726100
	OrysaTUA2	Os11g0247300
	OrysaTUA3	Os07g0574800
	OrysaTUA4	Os03g0219300
<i>Prunus dulcis</i> (almond)	PruduTUA	CAA47635
<i>Pseudotsuga menziesii</i> (douglas fir)	PsemeTUA1	AAV92379
<i>Setaria viridis</i> (green foxtail)	SetviTUA1	CAE52514
	SetviTUA2	CAE52515
<i>Solanum tuberosum</i> (potato)	SoltuTUA1	ABB02631
	SoltuTUA2	ABB16994
<i>Zea mays</i> (maize)	ZeamaTUA2	CAA33733
	ZeamaTUA3	CAA44861
	ZeamaTUA5	XAA44862
	ZeamaTUA6	CAA44863
	GoshiTUA1	AAQ92661
<b><math>\beta</math>-tubulin</b>		
<i>Arabidopsis thaliana</i>	ArathTUB1	At1g75780
	ArathTUB2	At5g62690
	ArathTUB3	At5g62700
	ArathTUB4	At5g44340
	ArathTUB5	At1g20010
	ArathTUB6	At5g12250
	ArathTUB7	At2g29550
	ArathTUB8	At5g23860

	ArathTUB9	At4g20890
<i>Chlamydomonas reinhardtii</i> (green alga)	ChlreTUB1/2	P04690
<i>Eleusine indica</i> (goosegrass)	EleinTUB1	AAD20178
	EleinTUB2	AAD20179
	EleinTUB3	AAD20180
	EleinTUB4	AAD20181
<i>Gossypium hirsutum</i> (cotton)	GoshiTUB1	AAL92118
	GoshiTUB5	AAQ92665
	GoshiTUB6	AAQ92666
	GoshiTUB7	AAQ92667
	GoshiTUB10	AAN32988
<i>Medicago truncatula</i> (barrel medic)	MedtrTUB3	ABE83854
	MedtrTUB4	ABE83857
	MedtrTUB5	ABE90057
	MedtrTUB1	ABE81376
	MedtrTUB6	ABE92128
	MedtrTUB2	ABE81426
<i>Oryza sativa</i> (rice)	OrysaTUB1	Os01g0282800
	OrysaTUB2	Os03g0105600
	OrysaTUB3	Os06g0671900
	OrysaTUB4	Os01g0805900
	OrysaTUB5	Os02g0167300
	OrysaTUB6	Os05g0413200
	OrysaTUB7	Os03g0780600
	OrysaTUB8	Os03g0661300
<i>Setaria viridis</i> (green foxtail)	SetviTUB1	CAE52516
	SetviTUB2	CAE52517
<i>Solanum tuberosum</i> (potato)	SoltuTUB3	ABA46773
	SoltuTUB4	ABA81852
	SoltuTUB1	CAA83847
	SoltuTUB2	CAA83853
<i>Triticum aestivum</i> (wheat)	TriaeTUB1	AAD10487
	TriaeTUB2	AAD10488
	TriaeTUB3	AAD10489
	TriaeTUB4	AAD10490
	TriaeTUB5	AAD10492
<i>Zea mays</i> (maize)	ZeamaTUB1	CAA37060
	ZeamaTUB2	CAA37061
	ZeamaTUB3	CAA52718
	ZeamaTUB4	CAA52719
	ZeamaTUB5	CAA52720
	ZeamaTUB6	Q41783
	ZeamaTUB7	Q41784
	ZeamaTUB8	Q41785
<i>Zinnia elegans</i> (zinnia)	ZinelTUB1	BAA82637
	ZinelTUB2	BAA82638

---