

Supplementary Information

<i>AtRBCS1A</i>	ATGGCTTCCTCTATGCTCTCTCCGCTACTATGGTTGCCTCTCCGGCTCAGGCCACTATGGTCGC	65
<i>AtRBCS1B</i>	ATGGCTTCCTCTATGCTCTCTCTCCGCTGTGGTTACCTCCCGGGCTCAAGCCACCATGGTCGC	65
<i>AtRBCS2B</i>	ATGGCTTCCTCTATGCTCTCTCTCCGCTGTGGTTACCTCCCGGGCTCAAGCCACCATGGTCGC	65
<i>AtRBCS3B</i>	ATGGCTTCCTCTATGCTCTCTCTCCGCTGTGGTTACATCCCGGGCTCAGGCCACCATGGTCGC	65
<i>AtRBCS1A</i>	TCCTTTCAACGGACTTAAGTCCTCCGCTGCCTTCCAGCCACCCGCAAGGCTAACAACGACATTA	130
<i>AtRBCS1B</i>	TCCATTCACTGGTTTCAAGTCATCCGCTTCTTTCCCGGTACCCGCAAGGCCAACAACGACATTA	130
<i>AtRBCS2B</i>	TCCATTCAACGGCTTCAAGTCATCCGCTTCTTTCCCGGTACCCGCAAGGCCAACAACGACATTA	130
<i>AtRBCS3B</i>	TCCATTCAACGGCTTCAAGTCATCCGCTGCATTCCCGGTACCCGCAAGGCCAACAAGGACATCA	130
<i>AtRBCS1A</i>	CTTCCATCAACAAGCAACGGCGGAAGAGTTAACTGCATGACAGGTGTGGCCTCCGATTGGAAAGAAG	195
<i>AtRBCS1B</i>	CTTCCATCAACAAGCAATGGGGGAAGAGTTAGCTGCATGAAGGTGTGGCCACCAATCGGAAGAAG	195
<i>AtRBCS2B</i>	CTTCCATCAACAAGCAACGGAGGAAGAGTTAGCTGCATGAAGGTGTGGCCACCAATCGGAAGAAG	195
<i>AtRBCS3B</i>	CTTCCATCGCAAGCAACGGGGGAAGAGTTAGCTGCATGAAGGTGTGGCCACCAATTGGAAAGAAG	195
<i>AtRBCS1A</i>	AAGTTTGAGACTCTCTCTTACCTTCCTGACCTTACCGATTCCGAATTGGCTAAGGAAGTTGACTA	260
<i>AtRBCS1B</i>	AAGTTTGAGACTCTCTCTTACCTTCCTGACCTTACCTGACGTCGAATTGGCTAAGGAAGTTGACTA	260
<i>AtRBCS2B</i>	AAGTTTGAGACTCTCTCTTACCTTCCTGACCTTAGTGACGTTGAATTGGCTAAGGAAGTTGACTA	260
<i>AtRBCS3B</i>	AAGTTTGAGACTCTCTCTTACCTTCCTGACCTTAGTGACGTCGAATTGGCTAAGGAAGTTGACTA	260
<i>AtRBCS1A</i>	CCTTATCCGCAACAACCTGGATTCCCTGTGTTGAATTCGAGTTGAG.....CACG	310
<i>AtRBCS1B</i>	CCTTATCCGCAACAACCTGGATTCCCTGTGTTGAATTCGAGTTGAG.....CACG	310
<i>AtRBCS2B</i>	CCTTATCCGCAACAACCTGGATTCCCTGTGTTGAATTCGAGTTGAG.....CACG	310
<i>AtRBCS3B</i>	CCTTATCCGCAACAACCTGGATTCCCTGTGTTGAATTCGAGTTAGAGGTAATAAACACAAACACG	325
<i>AtRBCS1A</i>	GATTTGTGTACCGTGAGCACGGTAACCTACCCGGATACTATGATGGACGGTACTGGACAATGTGG	375
<i>AtRBCS1B</i>	GATTTGTGTACCGTGAGCACGGTAACACTCCCGGATACTACGATGGACGGTACTGGACAATGTGG	375
<i>AtRBCS2B</i>	GATTTGTGTACCGTGAGCACGGTAACACTCCCGGATACTATGATGGACGGTACTGGACAATGTGG	375
<i>AtRBCS3B</i>	GATTTGTGTACCGTGAGCACGGTAACACTCCCGGATACTACGATGGACGGTACTGGACAATGTGG	390
<i>AtRBCS1A</i>	AAGCTTCCCTTGTTTCGGTTGCACCGACTCCGCTCAAGTGTTGAAGGAAGTGAAGAGTGCAAGAA	440
<i>AtRBCS1B</i>	AAGCTTCCATTGTTTCGGATGCACCGACTCCGCTCAAGTGTTGAAGGAAGTGAAGAATGCAAGAA	440
<i>AtRBCS2B</i>	AAGCTTCCATTGTTTCGGATGCACCGACTCCGCTCAAGTGTTGAAGGAAGTGAAGAATGCAAGAA	440
<i>AtRBCS3B</i>	AAGCTTCCATTGTTTCGGATGCACCGACTCCGCTCAAGTGTTGAAGGAAGTGAAGAATGCAAGAA	455
<i>AtRBCS1A</i>	GGAGTACCCCAATGCCTTCATTAGGATCATCGGATTCGACAACACCCGTCAAGTCCAATGCATCA	505
<i>AtRBCS1B</i>	GGAGTACCCGGGCGCCTTCATTAGGATCATCGGATTCGACAACACCCGTCAAGTCCAATGCATCA	505
<i>AtRBCS2B</i>	GGAGTACCCCTGGCGCCTTCATTAGGATCATCGGATTCGACAACACCCGTCAAGTCCAATGCATCA	505
<i>AtRBCS3B</i>	GGAGTACCCGGGCGCCTTCATTAGGATCATCGGATTCGACAACACCCGTCAAGTCCAATGCATCA	520
<i>AtRBCS1A</i>	GTTTCATTGCCTACAAGCCCAAGCTTCACCGGTTAA..	543
<i>AtRBCS1B</i>	GTTTCATTGCCTACAAGCCCAAGCTTCACCTGATGCTTA	545
<i>AtRBCS2B</i>	GTTTCATTGCCTACAAGCCCAAGCTTCACCAAGCTTA	545
<i>AtRBCS3B</i>	GTTTCATTGCCTACAAGCCCAAGCTTCACCAAGCTTA	560

Figure S1. Multiple alignment of four *RBCS* gene sequences in *Arabidopsis thaliana*. Highlight homology level: 100%, black; $\geq 75\%$, pink; $\geq 50\%$, light blue; no homolog, white.

Table S1. Primers used in this study.

Gene ID	Primers (5' to 3')	Purpose
<i>RBCS1A</i> (At1g67090)	CACAAAGAGTAAAGAAGAACAATGGC	Forward primer for RT-PCR
	AGATGGGGGATAAAGTTTTGAGG	Reverse primer for RT-PCR
	AATTTCCGGACTTAACGTTTGTTT	Forward primer for qRT-PCR
	CATCAGACAGTTGAGAATCCGATAGA	Reverse primer for qRT-PCR
<i>RBCS1B</i> (At5g38430)	GGCAAAAGAAGAAGAAGAAGAAG	Forward primer for RT-PCR
	CCTTCAGTTTTTTTCACTTTGGCA	Reverse primer for RT-PCR
	GCCAAAGTGAAAAAACTGAAGGTT	Forward primer for qRT-PCR
	AAGAGCAGAAATGAAGTGATATGAATAGA	Reverse primer for qRT-PCR
<i>RBCS2B</i> (At5g38420)	ACAAACAAGTAAGTAAGAGAAAAACC	Forward primer for RT-PCR
	ATAGTTCCTCAACTGTTAAGTCGGC	Reverse primer for RT-PCR
	ACCCATTTCTATGTGGTCAATGC	Forward primer for qRT-PCR
	TTCACTTTCAAACAATAGTTCCTCAAC	Reverse primer for qRT-PCR
<i>RBCS3B</i> (At5g38410)	CACCAGTAGGAAAACAAGTCAGTAAG	Forward primer for RT-PCR
	CAGACAATAGGAAATGAAATGAGCAGAG	Reverse primer for RT-PCR
	CCTATTGTCTGTGTTCTTTTTCTCTTTATG	Forward primer for qRT-PCR
	TCAAGACGCACGGATATATAAATTACA	Reverse primer for qRT-PCR
<i>PHYA</i> (At1g09570)	GCAATCGGGAAGCATTTCCTC	Forward primer for qRT-PCR
	CATCAGCCCTGGACAGATGTG	Reverse primer for qRT-PCR
<i>PHYB</i> (At2g18790)	GCAAATGGCTGATGGATTCG	Forward primer for qRT-PCR
	CACTAGCAGTTGACAATGGTCG	Reverse primer for qRT-PCR
<i>HY5</i> (At5g11260)	GCTGCAAGCTCTTTACCATC	Forward primer for qRT-PCR
	AGCATCTGGTCTCGTTCTG	Reverse primer for qRT-PCR
<i>ACTIN2</i> (At3g18780)	GACCAGCTCTTCCATCGAGAA	Forward primer for qRT-PCR
	CAAACGAGGGCTGGAACAAG	Reverse primer for qRT-PCR
<i>18S rRNA</i> (At2g01010)	CCTTTCTCTCTTTCCATTGCGTT	Forward primer for RT-PCR
	TGTTATTTATTGTCACTACCTCC	Reverse primer for RT-PCR
	AATTGTTGGTCTTCAACGAGGAA	Forward primer for qRT-PCR
	AAAGGGCAGGGACGTAGTCAA	Reverse primer for qRT-PCR