Appendix A Primer Sequences of Enzyme Genes Related to Grain Starch Synthesis

Gene name	Accession No.	Primer sequences (5′-3′)
AGPS2	AK071826	F:TCTTTTGTTGCCCATTCATCTGG R:TGATTCCAAGCACACTCTCATCGAC
AGPL2	AK071497	F:TAGATAGGCCTTGGAATCGCACC R:TAGAGTTCCCATTCCAAAACAAACC
SSI	AK109458	F:GGGCCTTCATGGATCAACC R:CCGCTTCAAGCATCCTCATC
SSIIa	AK101978	F:GGCCAAGTACCAATGGTGAA R:GCATGATGCATCTGAAACAAAGC
SSIIIa	AK061604	F:GCCTGCCCTGGACTACATTG R:GCAAACATATGTACACGGTTCTGG
GBSSI	X62134	F:GATGAGATACGGAACGCCCT R:GCCCATGTGGAAACCAGTCT
SBEI	AK065121	F:TGGCCATGGAAGAGTTGGC R:CAGAAGCAACTGCTCCACC
SBEIIb	D16201	F:ATGCTAGAGTTTGACCGC R:AGTGTGATGGATCCTGCC
ISA		F:5GGGTCAATTTCGCCGTCTAC R:CATTCCCCGTCCGATTGAAC
Actin	AY212324.1	F:GTGATGGTTGGTATGGGGCA R:CTCAGTCAGCAACACAGGGT

Note: F: Forward primer; R: Reverse primer

Appendix B Correlation of enzyme activities of starch synthesis and the starch content in superior and inferior spikelets of rice

	Amylose content		Amylopectin content		Total starch content		Amylose/Amylopectin ratio	
	Superior	Inferior	Superior	Inferior	Superior	Inferior	Superior	Inferior
AGP	0.124	0.990^{**}	0.528	0.977^{**}	0.433	0.980^{**}	-0.091	-0.914^{**}
SSS	0.251	0.977^{**}	0.709	0.970^{**}	0.624^{*}	0.973^{**}	-0.030	-0.919^{**}
GBSS	0.504	0.991^{**}	0.634	0.995^{**}	0.696^{*}	0.996^{**}	0.273	-0.961^{**}
SBE	0.262	0.990^{**}	0.624	0.995^{**}	0.569	0.995^{**}	0.017	-0.960^{**}
DBE	0.384	0.973^{**}	0.532	0.986^{**}	0.565	0.985^{**}	0.188	-0.968^{**}
AGPS2b	0.386	0.973^{**}	0.620^{*}	0.988^{**}	0.628^{*}	0.987^{**}	0.153	-0.968^{**}
AGPL2	0.380	0.976^{**}	0.581^{*}	0.976^{**}	0.598^{*}	0.977^{**}	0.163	-0.932^{**}
SSI	0.661^{*}	0.980^{**}	0.341	0.960^{**}	0.568	0.964^{**}	0.568	-0.888^{**}
SSIIa	0.270	0.839^{**}	0.477	0.828^{**}	0.470	0.831^{**}	0.088	-0.777^{**}
SSIIIa	0.223	0.961^{**}	0.420	0.968^{**}	0.406	0.968^{**}	0.061	-0.936^{**}
GBSSI	0.394	0.989^{**}	0.513	0.974^{**}	0.556	0.978^{**}	0.207	-0.905^{**}
SBEI	0.542	0.978^{**}	0.609^{*}	0.989^{**}	0.697^{*}	0.989^{**}	0.324	-0.967^{**}
SBEIIb	0.290	0.970^{**}	0.468	0.970^{**}	0.473	0.971^{**}	0.114	-0.922^{**}
ISA1	0.390	0.981^{**}	0.821^{**}	0.984^{**}	0.772^{**}	0.985^{**}	0.071	-0.953^{**}

Note: The symbol of * indicates the correlation significance at the 0.05 probability level; ** indicates the correlation significance at the 0.01 probability level.