## Supplementary Information

## Targeting alternative splicing by RNAi: from the differential impact on splice variants to triggering artificial pre-mRNA splicing

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Figure S1. Differential sensitivity of *At-RS31a* and *At-SR30* splice variants to amiRNAs and nonsense-mediated mRNA decay (NMD). (A-G) Shown are RT-qPCR analyses of *At-RS31a* (A, C, D, F) and *At-SR30* (B, E, G) splice variants in mock- and cycloheximide-treated wild type, *amiR-31a-E2* (A, C, D, F) and *amiR-30-E7* (B, E, G) transgenic plants. Canonical (reference – REF) protein-coding isoforms are called mRNA1. Other splice variants (mRNA2-4) are generated by usage of different AS events: CE, cassette exon; Alt5'/3'SS, alternative 5'/3' splice site; IR, intron retention. Each splice variant was grouped depending on its amiRNA- and NMD-sensitivity. Note that *At-RS31a* mRNA2 and mRNA3 (C, D) were plotted as Log10 and *At-SR30* mRNA2 (E) as Log2. Primers were designed to specifically detect the indicated mRNA isoform (see Figures. 2 and 3 and Table S2). Expression was normalized to *PP2AA3* and plotted relative to wild type. Data represent means ± standard deviation (n ≥ 3). Student's t-test, \*\*\*p < 0.001; \*\*p < 0.01; \*p < 0.05; ns, not significant.



Figure S2. Mutants with NMD impairment display effective amiRNA-mediated downregulation of *At-RS31a* mRNA2 and mRNA3, the NMD-sensitive isoforms of the gene. (A-D) RT-qPCR analyses of *At-RS31a* splice variants in wild type, *amiR-31a-E2*, *upf3-1* and *amiR-31a-E2/upf3-1* transgenic plants. Canonical (reference – REF) protein-coding isoforms are called mRNA1. Other splice variants (mRNA2-4) are generated by usage of different AS events: CE, cassette exon; Alt5'SS, alternative 5' splice site; IR, intron retention. NMD-sensitive splice variants (mRNA2 and mRNA3) show enhanced amiRNA-mediated down-regulation, while NMD-resistant mRNA1 and mRNA4 are not changing levels of down-regulation upon NMD impairment in *amiR-31a-E2/upf3-1* plants. Partial gene models are shown to visualize analyzed regions and primer locations. Primers are shown by arrows. Dashed arrows represent primers spanning exon junctions. Primers are listed in Table S2. Expression was normalized to *PP2AA3* and plotted relative to wild type. Data represent means ± standard deviation (n ≥ 3). Student's t-test, \*\*p < 0.01; \*p < 0.05; ns, not significant.



Figure S3. Particular splice variants escape amiRNA-mediated cleavage due to nuclear retention. (A) Partial gene models (cleaved exon 2 - intron 2 - exon 3) of At-RS31a are shown to visualize primer locations and regions analyzed by nested RT-PCRs. A modified 5'RLM-RACE was performed in wild type and amiR-31a-E2 transgenic plants to detect which splice variants of At-RS31a were cleaved by amiR-31a-E2-RISC. The RNA adaptor fused to At-RS31a transcripts during the modified 5'RLM-RACE procedure is shown as a grey box. The amiRNA-target site is indicated as a pentagon. Positions of the first premature termination codon downstream of the translation start sites are shown by asterisks. Double-arrows and dashed arrows represent nested and exon junction primers, respectively (Table S2). (B) AmiRNA-induced mRNA cleavage shown by nested RT-PCR analyses of At-RS31a cleavage products in amiR-31a-E2 transgenic plants. (C) Subcellular distribution of At-RS31a and At-SR30 mRNA isoforms correlates with their sensitivity to the amiRNA. RT-PCR analyses of At-RS31a and At-SR30 splice variants in cellular fractions of upf3-1 mutant plants. T, total; C, cytoplasmic; N, nuclear. Purity of cellular fractions was confirmed by Western blot analyses of cytoplasmic (cFBP, cytosolic fructose-1,6bisphosphatase) and nuclear (H3, Histone H3) markers. Non-specific products in (B) and (C) are shown by black dots.

amiRN A	Target gene	Gene ID	Targ et regio n	amiRNA sequence	amiRNA * sequence	Complemen tarity	Back bone	Vector	Clone	Construct ID
amiR- 31a-E2	At- RS31a	AT2G4 6610	Exon 2	ACGTA CACAT GTCTC ATTCTT	AAGAA TGAGA CTAGT GTACG T	Perfect	miR1 59a	ECV/pG PTV	amiR- 31a-E2	35S::priamiRN A(RS31a-Ex2)- nosT
amiR- 31a/41	At- RS31a At-RS41	AT2G4 6610 AT5G5 2040	Exon 3	ACGGA TTGCAT CTTCA GCATC	GATGC TGAAG AACCA ATCCGT	Perfect to At-RS31a 2 mismatches to At-RS41	miR1 59a	ECV/pG PTV	amiR- 31a/41	35S::priamiRN A(RS31a/RS41 -Ex3)-nosT
amiR- 31a-E4	At- RS31a	AT2G4 6610	Exon 4	AGGCC TCTGAT TCGAG ACTGC	GCAGT CTCGA AAGAG AGGCC T	Perfect	miR1 59a	ECV/pG PTV	amiR- 31a-E4	35S::priamiRN A(RS31a-Ex4)- nosT
amiR- 30-E7	At-SR30	AT1G0 9140	Exon 7	ATCTTA GTTGCT ATAAT CCGCG ACCCC	GGGGT AGCGG ATTATA CCAAC TATGAT	2 mismatches	miR3 19a	pAMIR	CSHL_0 11244	35S::priamiRN A(SR30-Ex7)- nosT

Table S1. Summary of amiRNAs used in this study

## Table S2. Primers for PCRs, RT-PCR and RT-qPCR as well as RNA probes used for Northern blotting

#	Orientation	Sequence 5'-3'	Method	Gene/Purpose
1	F, E1	GTCGTCGTCGTCTTCTAGGG	RT-PCR	At-RS31a
2	F, E2	AAGTTCGGGAGAGTGAAGCG	RT-PCR	At-RS31a
3	R, E3	TGATAACTTGCGTCGCCCAT	RT-PCR	At-RS31a
4	R, E6	TGCTCTTTGAATCGGGGACC	RT-PCR	At-RS31a
5	F, E1	ACGGCCGGTACGATTTTTCA	RT-PCR	At-RS41
б	R, E11	AGCTGCGCTCGTAAACATCT	RT-PCR	At-RS41
7	F, E1	ACGTTGGGAATTTGCCTGGAGA	RT-PCR	At-SR30
8	F, E10	CTTAGTCGTTCTCGCTCGCT	RT-PCR	At-SR30
9	R, E11	GGTGAAACTGGAGAATTCGATCTTG	RT-PCR	At-SR30
10	F	GGTTGTTCGTCACTTGCCGCC	RT-PCR	UPF3
11	R	TGCTGTAGTCTTCCGGGGGCACA	RT-PCR	UPF'3
12	F'		RT-PCR	UBQ
14	R E E4/E		RT-PCR	UBQ
14	F, E4/5		RI-QPCR	AL-RSSIA LOLAI MIRNA
15	R, ED E E2/2		RI-QPCR	AL-RSSIA LOLAI MIRNA
17	F, EZ/5 R F4	TTTCCATCACCACCCTTCCC	RT-qPCR	At-RS31a mRNA1
18	F E2/T2	AGTTGATATGAAGTCTGGAG	RT-aPCR	At-RS31a mRNA2
19	R, I2	TAGGCATGAGAAAATGTAGG	RT-aPCR	At-RS31a mRNA2
20	F, I2	GTATGTAAGTGTTTGTTTGG	RT-qPCR	At-RS31a mRNA3
21	R, I2/E3	CACAAAAGCATAACCTGCATC	RT-qPCR	At-RS31a mRNA3
22	F, I2	GCATTGCAATTTCTGTGGGC	RT-qPCR	At-RS31a mRNA4
23	R, E3/4	TTCACCCTGAAAGTCCTTGG	RT-qPCR	At-RS31a mRNA4
24	F, E1/3	CTCTTCAGATTCTTCAAGGTTATG	RT-qPCR	At-RS31a mRNA-E2S
25	R, E4	GACTGCCTTTCCATCACGAG	RT-qPCR	At-RS31a mRNA-E2S
				At-RS31a, amiR-31a-E2
26	F, E1/2	CTTCAGATTCTTCAAGGAAT	RT-qPCR	target site
				At-RS31a, amiR-31a-E2
27	R, E2	TCACTCTCCCGAACTTGC	RT-qPCR	target site
0.0			22 242	At-RS31a, amiR-31a/41
28	F, E3	TGCTTTTGTGTATTTTGAG	R.IdbCK	target site
20	D F2//	ͲͲϤϪϴϤϤͲϤϪϪϪ		At-RS31a, amiR-31a/41
29	R, E3/4	TICACCCIGAAAGICCIIGG	KI-QPCK	At-RS31a amiR-31a-F4
30	F. E3/4	AGTTGAATGGGCCAAGGAC	RT-aPCR	target site
	-,, -			At-RS31a, amiR-31a-E4
31	R, E4	GAACATTGAGAACTTTACC	RT-qPCR	target site
32	F, E4/5	GGATGCTACAAATTCCAGTAAG	RT-qPCR	At-RS41 total mRNA
33	R, E5	TCCACTGAGATCACCTTATCC	RT-qPCR	At-RS41 total mRNA
34	F, E2/3	TTGATATGAAAGCTGGGTTTG	RT-qPCR	At-RS41 mRNA1
35	R, E4	AACAGAGTCTTGGAAGGTC	RT-qPCR	At-RS41 mRNA1
				At-RS41, amiR-31a/41
36	F, E3	GITTIGCTTTITGTCTATATGG	RT-qPCR	target site
27	D D2/4			At-RS41, amiR-31a/41
37	R, E3/4 E E9/10		RI-qPCR PT-qPCR	At-SP20 total mPNA
30	F, E9/10	TATACCACCACCACACCAC	RI-QPCR	At-SR30 total mRNA
40	F, E10/11	ACAGCTCTGTCTCAAGGTCC	RT-aPCR	At-SR30 mRNA1
41	R. E12	GCTTGAGACGATTCGGGTAC	RT-aPCR	At-SR30 mRNA1
42	F, E10/I10	TACAGCTCTGTCTCAAGATC	RT-qPCR	At-SR30 mRNA2
43	R, I10/E11	ATTTTGATCTTGATTGGGACAG	- RT-qPCR	At-SR30 mRNA2
42	F, E10/I10	TACAGCTCTGTCTCAAGATC	RT-qPCR	At-SR30 mRNA3
44	R, I10	GAGGAATCAGAGTAATCATAG	RT-qPCR	At-SR30 mRNA3
				At-SR30, amiR-30-E7
45	F, E5	ATTACCGCCTTCTGCTTCGTG	RT-qPCR	target site
				At-SR30, amiR-30-E7
46	R, E8/9	TCGACTCATATTCCCTCACCC	RT-qPCR	target site
47	F, E12	TAACGTGGCCAAAATGATGC	RT-qPCR	PP2AA3
48	к, етз	GIICICCACAACCGCTTGGT	KI-dhCK	PPZAA3
49	R, E3	GCCCATTCAACTGATAACTTGCGTCGCC	5'RLM-RACE	At-RS31a, first PCR
50	R, E3	CTACGGATTGCATCTTCAGCATCGCGC	5'RLM-RACE	At-RS31a, nested PCR
51	R, E2/I2	CATGCTCCTTTAGAGAAAGCTCCAGAC	5'RLM-RACE	At-RS31a, nested PCR
F 0		ATCGGCTAGCTGGAAGAAGAATGAGACTAGTGTACGTCATGAGTTGAGC	DOD	
52	Ľ		PCK	Generation of amik-31a-E2
52	R	CIAIGIACAAGAAGAIGAAGAAIGAGACAIGIGIACGIGAAGAGTAAA	PCR	Generation of amip_21a_F?
		ATCGGCTAGCTGGAAGGATGCTGAAGAACCAATCCGTCATGAGTTGAGC	1.010	Concraction of anth-Sta-E2
54	F	AGGGTAAAG	PCR	Generation of amiR-31a/41

1		GCTATGTACAAGAAGATGGATGCTGAAGATGCAATCCGTGAAGAGTAAA		
55	R	AGCCATTAAAGGG	PCR	Generation of amiR-31a/41
	10		1000	Scheracion of amin Sia, II
FG	T.	ACCOUNTS	DOD	Concration of smiD 21s E4
50	F		PCR	Generation of amik-31a-E4
		GCTATGTACAAGAAGATGGCAGTCTCGAATCAGAGGCCTGAAGAGTAAA		
57	R	AGCCATTAAAGGG	PCR	Generation of amiR-31a-E4
58	R	TCTACCCGAGGCAGTTGCAT	PCR	pre-amiR-31a detection
				Genotyping amiR-30-
59	F	CCACTATCCTTCGCAAGACCCTTCCT	PCR	E7/CSHL 011244
			-	Genotyping amiR-30-
60	D	ACCCCCCTT ACCATCTCACC	DCP	E7/CSHI 011244
00	IC	ACCOCCOTACOATCIDACC	1 CR	Genetaming herl
<b>C</b> 1	_		DOD	
61	F.	AGCAATTCCTCAAAAAGGTCC	PCR	6/SALK_090960
				Genotyping henl-
62	R	GCCAAACATCCTGTTGAAAAG	PCR	6/SALK_090960
63	F	CAGTTCAATCAATGGGCATC	PCR	CAPS assay hen1-1
64	R	CATCTTCTTTGTTCCACTCCC	PCR	CAPS assay hen1-1
65	F	TAGTCTCATCAAGTTATGTCT	PCR	CAPS assay hen1-8
66	R	GCAGAGAAGCGTGTTCAATC	PCR	CAPS assay hen1-8
	10		1 610	amip 21a E2 DNA proba
67			Manthanna	amir-sia-Ez RNA probe
67	F		Northern	construction
				amiR-31a/41 RNA probe
68	F	ACGGATTGCATCTTCAGCATCCCTGTCTC	Northern	construction
				amiR-31a-E4 RNA probe
69	F	AGGCCTCTGATTCGAGACTGCCCTGTCTC	Northern	construction
				amiR-30-E7 RNA probe
70	ਸ	ΔͲϹͲͲϪϹͲͲϤϾͲϪͲϪϪͲϹϹϹϹϹϹϹϹϹϹϹϹϹϹϹϹϹ	Northern	construction
70	r F		Northern	US DNA proba construction
/1	F 		NOTCHETH	U6 RNA Probe construction
72	F, E2	ACGGCGAGATGGCAGTTACG	RT-PCR	Human SRSF4, splicing
73	R, E4	TTGTGAGCATCTGCATAAGTC	RT-PCR	Human SRSF4, splicing
74	F, El	TGGAGGTGGATCTGAAGAAC	RT-qPCR	Human SRSF4 total mRNA
75	R, E2	GTTCATAAACAGCATCATCTG	RT-qPCR	Human SRSF4 total mRNA
76	F. E21E3	ТТАСССТТСТССАССАСТС	RT-aPCR	Human SRSF4 REF mRNA
77	-,j p	ͲϤϤλλλϤϤͲϤͲͲͲϤλͲϤλϤ		Human CPCEA DEE mPNA & TP
70			NI GICK	Human SDSF1 KEF MIXINA & IK
/8	F, IZJE3	TATTTGAACCTTCCAAAGGTG	RI-dFCK	Human SRSF4 IR
				Generation of
I				
79	F	TACAAAAAAGCAGGCTCCACTCTTGTCTTCTCCAGTTAAAAC	PCR	35S::miR156a
79	F	TACAAAAAAGCAGGCTCCACTCTTTGTCTTCTCCAGTTAAAAC	PCR	35S::miR156a Generation of
79 80	F	TACAAAAAAGCAGGCTCCACTCTTTGTCTTCTCCAGTTAAAAC GCTGGGTCTAGATATCTCGACAAGAGAGAGAGAGAAAG	PCR PCR	35S::miR156a Generation of 35S::miR156a
79 80 81	F R F, E3	TACAAAAAAGCAGGCTCCACTCTTGTCTTCTCCAGTTAAAAC GCTGGGTCTAGATATCTCGACAAGAGAGACAGAGAAAG CTGAGTTTGATGAGAAAGAAACG	PCR PCR RT-PCR	35S::miR156a Generation of 35S::miR156a At-SPL2
79 80 81 82	F R F, E3 R E5	TACAAAAAAGCAGGCTCCACTCTTGTCTTCTCCAGTTAAAAC GCTGGGTCTAGATATCTCGACAAGAGAGACAGAGAAAG CTGAGTTTGATGAGAAGAAACG TACGGGTTGGAGGTTGCTTGAGG	PCR PCR RT-PCR RT-PCR	35S::miR156a Generation of 35S::miR156a At-SPL2 At-SPL2
79 80 81 82 83	F R F, E3 R, E5 F F2	TACAAAAAAGCAGGCTCCACTCTTTGTCTTCTCCAGTTAAAAC GCTGGGTCTAGATATCTCGACAAGAGAGACAGAGAAAG CTGAGTTTGATGAGAAGAAACG TACGGGTTGGAGGTTGCTTGAGG GCCATAGACTTTCCCACGCT	PCR PCR RT-PCR RT-PCR RT-PCR	35S::miR156a Generation of 35S::miR156a At-SPL2 At-SPL2 At-SPL2
79 80 81 82 83	F R F, E3 R, E5 F, E2 P E4	TACAAAAAAGCAGGCTCCACTCTTTGTCTTCTCCAGTTAAAAC GCTGGGTCTAGATATCTCGACAAGAGAGACAGAGAAAG CTGAGTTTGATGAGAAGAAACG TACGGGTTGGAGGTTGCTTGAGG GGCATAGAGTTTGCGAGGCT	PCR PCR RT-PCR RT-PCR RT-PCR RT-PCR	35s::miR156a Generation of 35s::miR156a At-SPL2 At-SPL2 At-SPL6
79 80 81 82 83 84	F R F, E3 R, E5 F, E2 R, E4	TACAAAAAAGCAGGCTCCACTCTTGTCTTCTCCAGTTAAAAC GCTGGGTCTAGATATCTCGACAAGAGAGAGAGAGAAAG CTGAGTTTGATGAGAAAGAAACG TACGGGTTGGAGGTTGCTTGAGG GGCATAGAGTTTGCGAGGCT TGGTTGGGTTG	PCR PCR RT-PCR RT-PCR RT-PCR RT-PCR	35S::miR156a Generation of 35S::miR156a At-SPL2 At-SPL2 At-SPL6 At-SPL6
79 80 81 82 83 84 85	F F, E3 R, E5 F, E2 R, E4 F, E4	TACAAAAAAGCAGGCTCCACTCTTGTCTTCTCCAGTTAAAAC GCTGGGTCTAGATATCTCGACAAGAGAGAGAGAGAAAG CTGAGTTTGATGAGAAAGAAACG TACGGGTTGGAGGTTGCTTGAGG GGCATAGAGTTTGCGAGGCT TGGTTGGGTTG	PCR PCR RT-PCR RT-PCR RT-PCR RT-PCR RT-PCR RT-qPCR	35S::miR156a Generation of 35S::miR156a At-SPL2 At-SPL2 At-SPL6 At-SPL6 At-SPL2, total mRNA
79 80 81 82 83 84 85 86	F R F, E3 R, E5 F, E2 R, E4 F, E4 F, E3-4j	TACAAAAAAGCAGGCTCCACTCTTGTCTTCTCCAGTTAAAAC GCTGGGTCTAGATATCTCGACAAGAGAGAGAGAGAAAG CTGAGTTTGATGAGAAAAACG TACGGGTTGGAGGTTGCTTGAGG GGCATAGAGTTTGCGAGGCT TGGTTGGGTTG	PCR PCR RT-PCR RT-PCR RT-PCR RT-PCR RT-qPCR RT-qPCR	35S::miR156a Generation of 35S::miR156a At-SPL2 At-SPL2 At-SPL6 At-SPL6 At-SPL2, total mRNA At-SPL2, REF
79 80 81 82 83 84 85 86 86 87	F F, E3 R, E5 F, E2 R, E4 F, E4 F, E3-4j F, I3	TACAAAAAAGCAGGCTCCACTCTTGTCTTCTCCAGTTAAAAC GCTGGGTCTAGATATCTCGACAAGAGAGACAGAGAAAG CTGAGTTTGATGAGAAAAACG TACGGGTTGGAGGTTGCTTGAGG GGCATAGAGTTTGCGAGGCT TGGTTGGGTTG	PCR PCR RT-PCR RT-PCR RT-PCR RT-PCR RT-qPCR RT-qPCR RT-qPCR	35S::miR156a Generation of 35S::miR156a At-SPL2 At-SPL2 At-SPL6 At-SPL6 At-SPL2, total mRNA At-SPL2, REF At-SPL2, IR
79 80 81 82 83 84 85 86 87 88	F F, E3 R, E5 F, E2 R, E4 F, E4 F, E3-4j F, I3 R. E5	TACAAAAAAGCAGGCTCCACTCTTGTCTTCTCCAGTTAAAAC GCTGGGTCTAGATATCTCGACAAGAGAGACAGAGAAAG CTGAGTTTGATGAGAAAACG TACGGGTTGGAGGTTGCTTGAGG GGCATAGAGTTGCGAGGCT TGGTTGGGTTG	PCR PCR RT-PCR RT-PCR RT-PCR RT-PCR RT-qPCR RT-qPCR RT-qPCR RT-qPCR	35S::miR156a Generation of 35S::miR156a At-SPL2 At-SPL2 At-SPL6 At-SPL6 At-SPL2, total mRNA At-SPL2, REF At-SPL2, IR At-SPL2, IR At-SPL2, total & REF & IR
79 80 81 82 83 84 85 86 87 88 88 89	F R F, E3 R, E5 F, E2 R, E4 F, E4 F, E3-4j F, I3 R. E5 F, E4	TACAAAAAAGCAGGCTCCACTCTTTGTCTTCTCCAGTTAAAAC GCTGGGTCTAGATATCTCGACAAGAGAGAGAGAGAAAG CTGAGTTTGATGAGAAAGAAACG TACGGGTTGGAGGTTGCTTGAGG GGCATAGAGTTGCGAGGCT TGGTTGGGTTG	PCR PCR RT-PCR RT-PCR RT-PCR RT-PCR RT-qPCR RT-qPCR RT-qPCR RT-qPCR RT-qPCR RT-qPCR	35S::miR156a Generation of 35S::miR156a At-SPL2 At-SPL2 At-SPL6 At-SPL6 At-SPL2, total mRNA At-SPL2, REF At-SPL2, IR At-SPL2, IR At-SPL2, total & REF & IR At-SPL2, total mRNA
79 80 81 82 83 84 85 86 87 87 88 89 90	F R F, E3 R, E5 F, E2 R, E4 F, E4 F, E3-4j F, I3 R. E5 F, E4 F, E4 F E3-4j	TACAAAAAAGCAGGCTCCACTCTTTGTCTTCTCCAGTTAAAAC GCTGGGTCTAGATATCTCGACAAGAGAGAGAGAGAGAAAG CTGAGTTTGATGAGAAAAACG TACGGGTTGGAGGTGCTTGAGG GGCATAGAGTTGCGAGGCT TGGTTGGGTTG	PCR PCR RT-PCR RT-PCR RT-PCR RT-PCR RT-qPCR RT-qPCR RT-qPCR RT-qPCR RT-qPCR RT-qPCP RT-qPCP	35S::miR156a Generation of 35S::miR156a At-SPL2 At-SPL2 At-SPL6 At-SPL6 At-SPL2, total mRNA At-SPL2, REF At-SPL2, IR At-SPL2, total & REF & IR At-SPL6, total mRNA At-SPL6, REF
79 80 81 82 83 84 85 86 87 88 88 89 90	F R F, E3 R, E5 F, E2 R, E4 F, E4 F, E3-4j F, I3 R. E5 F, E4 F, E4 F, E4 F, E4 F, E4 F, E3-4j F, E3-4j F, E3-4j F, E3-4j	TACAAAAAAGCAGGCTCCACTCTTTGTCTTCTCCAGTTAAAAC GCTGGGTCTAGATATCTCGACAAGAGAGAGAGAGAGAAAG CTGAGTTTGATGAGAAAAACG TACGGGTTGGAGGTTGCTTGAGG GGCATAGAGTTGCGAGGCT TGGTTGGGTTG	PCR PCR RT-PCR RT-PCR RT-PCR RT-PCR RT-qPCR RT-qPCR RT-qPCR RT-qPCR RT-qPCR RT-qPCR RT-qPCR RT-qPCR RT-qPCR RT-qPCR RT-qPCR	35S::miR156a Generation of 35S::miR156a At-SPL2 At-SPL2 At-SPL6 At-SPL6 At-SPL2, total mRNA At-SPL2, REF At-SPL2, IR At-SPL2, total & REF & IR At-SPL6, total mRNA At-SPL6, REF At-SPL6 TD
79 80 81 82 83 84 85 86 87 88 89 90 90	F R F, E3 R, E5 F, E2 R, E4 F, E4 F, E3-4j F, I3 R. E5 F, E4 F, E3-4j F, E3-4j F, I3 P. E4	TACAAAAAAGCAGGCTCCACTCTTTGTCTTCTCCAGTTAAAAC GCTGGGTCTAGATATCTCGACAAGAGAGACAGAGAAAG CTGAGTTTGATGAGAAAGAAACG TACGGGTTGGAGGTGCTTGAGG GGCATAGAGTTGCGAGGCT TGGTTGGGTTG	PCR PCR RT-PCR RT-PCR RT-PCR RT-PCR RT-qPCR RT-qPCR RT-qPCR RT-qPCR RT-qPCR RT-qPCR RT-qPCR RT-qPCR RT-qPCR RT-qPCR RT-qPCR RT-qPCR	35S::miR156a Generation of 35S::miR156a At-SPL2 At-SPL2 At-SPL6 At-SPL6 At-SPL2, total mRNA At-SPL2, REF At-SPL2, IR At-SPL2, total & REF & IR At-SPL6, total mRNA At-SPL6, REF At-SPL6, IR AT-SPL6, IR
79 80 81 82 83 84 85 86 87 88 89 90 91 92	F F, E3 F, E5 F, E2 F, E4 F, E4 F, E3-4j F, I3 R. E5 F, E4 F, E3-4j F, I3 R. E5	TACAAAAAAGCAGGCTCCACTCTTGTCTTCTCCAGTTAAAAC GCTGGGTCTAGATATCTCGACAAGAGAGAGAGAGAGAGAAAG CTGAGTTTGATGAGAAAAACG TACGGGTTGGAGGTTGCTTGAGG GGCATAGAGTTGCGAGGGCT TGGTTGGGTTG	PCR PCR RT-PCR RT-PCR RT-PCR RT-qPCR RT-qPCR RT-qPCR RT-qPCR RT-qPCR RT-qPCR RT-qPCR RT-qPCR RT-qPCR RT-qPCR RT-qPCR RT-qPCR	35S::miR156a Generation of 35S::miR156a At-SPL2 At-SPL2 At-SPL6 At-SPL6, total mRNA At-SPL2, total mRNA At-SPL2, REF At-SPL2, IR At-SPL2, IR At-SPL2, total & REF & IR At-SPL6, total mRNA At-SPL6, REF At-SPL6, IR AT-SPL6, total & REF & IR
79 80 81 82 83 84 85 86 87 88 89 90 91 92	F R F, E3 R, E5 F, E2 R, E4 F, E4 F, E3-4j F, E3 R, E5 F, E4 F, E3-4j F, E4 F, E5 F, E4 F, E5 F, E3 F, E4 F, E5 F, E3 F, E4 F, E5 F, E3 F, E4 F, E5 F, E3 F, E3 F, E4 F, E5 F, E3 F, E3 F, E3 F, E3 F, E3 F, E3 F, E3 F, E4 F, E3 F, E4 F, E3 F, E3 F, E3 F, E3 F, E3 F, E4 F, E3 F, E4 F, E3 F, E4 F, E3 F, E4 F, E3 F, E3 F, E4 F, E4 F	TACAAAAAAGCAGGCTCCACTCTTTGTCTTCTCCAGTTAAAAC GCTGGGTCTAGATATCTCGACAAGAGAGAGAGAGAAAG CTGAGTTTGATGAGAAAGAAACG TACGGGTTGGAGGTGCTTGAGG GGCATAGAGTTGCGAGGCT TGGTTGGGTTG	PCR PCR RT-PCR RT-PCR RT-PCR RT-QPCR RT-QPCR RT-QPCR RT-QPCR RT-QPCR RT-QPCR RT-QPCR RT-QPCR RT-QPCR RT-QPCR	35S::miR156a Generation of 35S::miR156a At-SPL2 At-SPL2 At-SPL6 At-SPL6 At-SPL2, total mRNA At-SPL2, REF At-SPL2, IR At-SPL2, IR At-SPL2, total & REF & IR At-SPL6, REF At-SPL6, REF At-SPL6, IR AT-SPL6, total & REF & IR Generation of C1, C2 and
79 80 81 82 83 84 85 86 87 88 89 90 91 92 92 93	F R F, E3 R, E5 F, E2 R, E4 F, E4 F, E3-4j F, E3 F, E4 F, E3-4j F, I3 R, E4 F, I3 R, E4 F, I3 R, E4	TACAAAAAAGCAGGCTCCACTCTTTGTCTTCTCCAGTTAAAAC   GCTGGGTCTAGATATCTCGACAAGAGAGACAGAGAAAG   CTGAGTTTGATGAGAAAGAAACG   TACGGGTTGGAGGTTGCTTGAGG   GGCATAGAGTTGCGGAGGCT   TGGTTGGGTGGTGGATGA   TTTCCGATACCGAGCACAATAG   ATCCTGGAAGGACATATGATG   CATTTCATGTAGTTTGGGG   TACGGGTTGGAGGTGCTTGAGG   GAGACGACCACGTACAAGA   TACGGGTTGGAGGTGCTTGAGG   GAAGACGACCACCGTACAAGT   TCGCCACCTCCAAGATGTAG   TCTCTGCCTTTTCCCTATCCA   TGGTTGGGTTGGGTGATTGA   AAACCATGGCTTTTCCGGTTCATCATTATAAG	PCR PCR RT-PCR RT-PCR RT-PCR RT-QPCR RT-QPCR RT-QPCR RT-QPCR RT-QPCR RT-QPCR RT-QPCR RT-QPCR RT-QPCR RT-QPCR RT-QPCR RT-QPCR RT-QPCR	35S::miR156a Generation of 35S::miR156a At-SPL2 At-SPL2 At-SPL6 At-SPL6 At-SPL2, total mRNA At-SPL2, REF At-SPL2, IR At-SPL2, IR At-SPL6, total & REF & IR At-SPL6, REF At-SPL6, IR AT-SPL6, total & REF & IR Generation of C1, C2 and C3 minigenes
79 80 81 82 83 84 85 86 87 88 89 90 91 92 92 93	F R F, E3 R, E5 F, E2 R, E4 F, E4 F, E3-4j F, I3 R. E5 F, E4 F, E4 F, E3-4j F, I3 R, E4 F, E5 F, E2 F, E4 F, E4 F, E3-4j F, E3 F, E4 F, E4 F, E4 F, E3 F, E3 F, E3 F, E3 F, E4 F,	TACAAAAAAGCAGGCTCCACTCTTTGTCTTCTCCAGTTAAAAC   GCTGGGTCTAGATATCTCGACAAGAGAGAGAGAGAGAAAG   CTGAGTTTGATGAGAAAAACG   TACGGGTTGGAGGTTGCTTGAGG   GGCATAGAGTTGCGAGGCT   TGGTTGGGTGGGTGGATTGA   TTTCCGATACCGAGCACAATAG   ATCCTGGAAGGACATATGATG   CATTTCATGTAGTTTGGGGG   GAAGACGACCACCGTACAAGG   GAAGACGACCACCGTACAAGT   TCGCACCTCCAAGATGTAG   TCTCTGCCTTTCCCTATCCA   TGGTTGGGTTGGGTGATTGA	PCR PCR RT-PCR RT-PCR RT-PCR RT-QPCR RT-QPCR RT-QPCR RT-QPCR RT-QPCR RT-QPCR RT-QPCR RT-QPCR RT-QPCR RT-QPCR RT-QPCR RT-QPCR RT-QPCR	35S::miR156a Generation of 35S::miR156a At-SPL2 At-SPL2 At-SPL6 At-SPL6 At-SPL2, total mRNA At-SPL2, total mRNA At-SPL2, IR At-SPL2, IR At-SPL6, IR At-SPL6, REF At-SPL6, IR AT-SPL6, IR Generation of C1, C2 and C3 minigenes Generation of C1, C2 and
79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94	F R F, E3 R, E5 F, E2 R, E4 F, E4 F, E3-4j F, I3 R. E5 F, E4 F, E4 F, E3-4j F, I3 R, E4 F, E3-4j F, I3 R, E4 F, E3-4j F, E3 R, E4 F, E3 R, E4 F, E3 R, E4 F, E3 R, E5 F, E4 F, E3 R, E5 F, E4 F, E3 R, E5 F, E4 F, E3 R, E5 F, E4 F, E3 R, E4 F, E3 R, E4 F, E3 R, E4 F, E3 R, E4 F, E4 F, E3 R, E4 F, E3 R, E4 F, E1 R, E4 F, E1 R, E3	TACAAAAAAGCAGGCTCCACTCTTTGTCTTCTCCAGTTAAAAC   GCTGGGTCTAGATATCTCGACAAGAGAGACAGAGAAAG   CTGAGTTTGATGAGAAAAACG   TACGGGTTGGAGGTTGCTTGAGG   GGCATAGAGTTGCGAGGCT   TGGTTGGGTGGGTGGTTGA   TTTCCGATACCGAGCACAATAG   ATCCTGGAAGGACATATGATG   CATTTCATGTAGTTTTGGGG   TACGGGTTGGAGGTGCTTGAGG   GAAGACGACCACCGTACAAGT   TCGCACCTCTCAAGATGTAG   TCTCTGCCTTTCCCTATCCA   TGGTTGGGTTGGGTGGATGA   AAACCATGGCTTTTCGGGTCATCATTATAAG   AAAGGATCCCTTGGCCCATTCAACTGATAAC	PCR PCR RT-PCR RT-PCR RT-PCR RT-QPCR RT-QPCR RT-QPCR RT-QPCR RT-QPCR RT-QPCR RT-QPCR RT-QPCR RT-QPCR RT-QPCR RT-QPCR PCR PCR	35S::miR156a Generation of 35S::miR156a At-SPL2 At-SPL2 At-SPL6 At-SPL6 At-SPL2, total mRNA At-SPL2, REF At-SPL2, REF At-SPL2, IR At-SPL2, total & REF & IR At-SPL6, total & REF & IR At-SPL6, IR At-SPL6, IR AT-SPL6, IR AT-SPL6, IR AT-SPL6, IR AT-SPL6, IR Comeration of C1, C2 and C3 minigenes Generation of C1, C2 and C3 minigenes
79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94	F R F, E3 R, E5 F, E2 R, E4 F, E4 F, E3-4j F, I3 R. E5 F, E4 F, E3-4j F, E3-4j F, E3-4j F, E3 R, E4 F, E1 R. E3	TACAAAAAAGCAGGCTCCACTCTTTGTCTTCTCCAGTTAAAAC   GCTGGGTCTAGATATCTCGACAAGAGAGACAGAGAAAG   CTGAGTTTGATGAGAAAGAAACG   TACGGGTTGGAGGTTGCTTGAGG   GGCATAGAGTTGCGAGGCT   TGGTTGGGTGGGTGGTTGA   TTTCCGATACCGAGCACAATAG   ATCCTGGAAGGACATATGATG   CATTTCATGTAGTTTTGGGG   TACGGGTTGGAGGTTGCTTGAGG   GAAGACGACCACCGTACAAGT   TCGCACCTCTCAAGATGTAG   TCTCTGCCTTTTCCCTATCCA   TGGTTGGGTTGGTGGTGATTGA   AAACCATGGCTTTTCCGGTTCATCATTATAAG   AAAGGATCCCTTGGCCCATTCAACTGATAAC	PCR     PCR     RT-PCR     RT-PCR     RT-PCR     RT-qPCR     PCR     PCR	35S::miR156a Generation of 35S::miR156a At-SPL2 At-SPL2 At-SPL6 At-SPL6 At-SPL2, total mRNA At-SPL2, REF At-SPL2, REF At-SPL2, IR At-SPL2, IR At-SPL6, total & REF & IR At-SPL6, REF At-SPL6, IR AT-SPL6, IR AT-SPL6, total & REF & IR Generation of C1, C2 and C3 minigenes Generation of C1, C2 and C3 minigenes
79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95	F R F, E3 R, E5 F, E2 R, E4 F, E4 F, E3-4j F, E3 F, E4 F, E3-4j F, E3-4j F, E1 R, E4 F, E1 R, E3 F, E2	TACAAAAAAGCAGGCTCCACTCTTTGTCTTCTCCAGTTAAAAC   GCTGGGTCTAGATATCTCGACAAGAGAGAGAGAGAGAGAG	PCR     PCR     RT-PCR     RT-PCR     RT-PCR     RT-PCR     RT-qPCR     RT-qPCR     RT-qPCR     RT-qPCR     RT-qPCR     RT-qPCR     RT-qPCR     RT-qPCR     RT-qPCR     PCR     PCR	35S::miR156a Generation of 35S::miR156a At-SPL2 At-SPL2 At-SPL6 At-SPL6 At-SPL2, total mRNA At-SPL2, REF At-SPL2, IR At-SPL2, IR At-SPL2, IR At-SPL2, total & REF & IR At-SPL6, REF At-SPL6, REF At-SPL6, IR AT-SPL6, total & REF & IR Generation of C1, C2 and C3 minigenes Generation of C1, C2 and C3 minigenes
79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95	F R F, E3 R, E5 F, E2 R, E4 F, E4 F, E3-4j F, E3 R. E5 F, E4 F, E3-4j F, I3 R, E4 F, E1 R. E3 F, E2	TACAAAAAAGCAGGCTCCACTCTTTGTCTTCTCCAGTTAAAAC   GCTGGGTCTAGATATCTCGACAAGAGAGACAGAGAAAG   CTGAGTTTGATGAGAAAGAAACG   TACGGGTTGGAGGTTGCTTGAGG   GGCATAGAGTTGCGGAGGCT   TGGTTGGGTGGATGATTGA   TTTCCGATACCGAGCACAATAG   ATCCTGGAAGGACATATGATG   CATTTCATGTAGGTGATTGGGG   TACGGGTTGGGTGATTGAGG   GAGACGACCACGACAATAG   ATCCTGGAAGGACATATGATG   CATTTCATGTAGGTTGCTTGAGG   GAAGACGACCACCGTACAAGT   TCGCCACCTCCAAGATGTAG   TCTCTGCCTTTTCCCTATCCA   TGGTTGGGTTGGGTGATTGA   AAACCATGGCTTTTCGGGTCATCATTATAAG   AAAGGATCCCTTGGCCCATTCAACTGATAAC   TTCTATGCGTCACGTCTATGTTGGGAATTTCGACTATGATAC	PCR     PCR     RT-PCR     RT-PCR     RT-PCR     RT-qPCR     PCR     PCR	35S::miR156a Generation of 35S::miR156a At-SPL2 At-SPL2 At-SPL6 At-SPL6, total mRNA At-SPL2, REF At-SPL2, REF At-SPL2, IR At-SPL2, IR At-SPL2, total & REF & IR At-SPL6, total mRNA At-SPL6, REF At-SPL6, IR AT-SPL6, total & REF & IR Generation of C1, C2 and C3 minigenes Generation of C1, C2 and C3 minigenes
79 80 81 82 83 84 85 86 87 88 99 91 92 93 94 95	F R F, E3 R, E5 F, E2 R, E4 F, E4 F, E3-4j F, I3 R, E5 F, E4 F, E3-4j F, I3 R, E4 F, E1 R, E2 F, E2 P, E2	TACAAAAAAGCAGGCTCCACTCTTTGTCTTCTCCAGTTAAAAC   GCTGGGTCTAGATATCTCGACAAGAGAGAGAGAGAGAAAG   CTGAGTTTGATGAGAAAGAAACG   TACGGGTTGGAGGTTGCTTGAGG   GGCATAGAGTTGCGAGGCT   TGGTTGGGTGGGTGGATGA   TTTCCGATACCGAGCACAATAG   ATCCTGGAAGGACAATAGAGG   CATTTCATGTAGTTTGGGGG   GAAGACGACCACCGACAATAG   TTTCCGGATGCGAGGCTGATTGA   TTCCGGACGACCACAATAG   ATCCTGGAAGGACAATAGATG   CATTTCATGTAGTTTTGGGG   GAAGACGACCACCGTACAAGT   TCGCACCTCCAAGATGTAG   TCTCTGCCTTTTCCCTATCCA   TGGTTGGGTTGGGTGATTGA   AAACCATGGCTTTTCGGTTCATCATTATAAG   AAAGGATCCCTTGGCCCATTCAACTGATAAC   TTCTATGCGTCACGTCTATGTTGGGAATTTCGACTATGATAC	PCR PCR RT-PCR RT-PCR RT-PCR RT-PCR RT-qPCR RT-qPCR RT-qPCR RT-qPCR RT-qPCR RT-qPCR RT-qPCR RT-qPCR RT-qPCR RT-qPCR PCR PCR PCR	35S::miR156a Generation of 35S::miR156a At-SPL2 At-SPL2 At-SPL6 At-SPL6 At-SPL2, total mRNA At-SPL2, total mRNA At-SPL2, REF At-SPL2, IR At-SPL2, IR At-SPL6, total & REF & IR At-SPL6, REF At-SPL6, REF At-SPL6, IR AT-SPL6, IR AT-SPL6, total & REF & IR Generation of C1, C2 and C3 minigenes Generation of C1, C2 and C3 minigenes Generation of C1, C2 and C3 minigenes Generation of C1, C2 and C3 minigenes
79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96	F R F, E3 R, E5 F, E2 R, E4 F, E4 F, E3-4j F, I3 R, E5 F, E4 F, E3-4j F, I3 R, E4 F, E3-4j F, I3 R, E4 F, E1 R, E3 F, E2 R, E2 R, E2	TACAAAAAAGCAGGCTCCACTCTTTGTCTTCTCCAGTTAAAAC   GCTGGGTCTAGATATCTCGACAAGAGAGAGAGAGAGAGAAAG   CTGAGTTTGATGAGAAAAACG   TACGGGTTGGAGGTTGCTTGAGG   GGCATAGAGTTGCGAGGCT   TGGTTGGGTGGGTGATTGA   TTTCCGATACCGAGCACAATAG   ATCCTGGAAGGACATATGATG   CATTTCATGTAGTTTTGGGG   TACGGGTTGGAGGACAATAG   ATCCTGGAAGGACATATGATG   CATTTCATGTAGTTTTGGGGG   TACGGGTTGGCTGCAGGACGACAATAG   TACGGGTTGGAGGCACAATAG   ATCCTGGAAGGACATATGATG   CATTTCATGTAGATGTTGGGGG   GAAGACGACCACCGTACAAGT   TCGCACCTCCAAGATGTAG   TCGCACCTCTCAAGATGTAG   TCGGTTGGGTTGGGTGATTGA   TGGTTGGGTTGGGTGGATGAG   AAACCATGGCTTTTCCGGTTCATCATTATAAG   AAACCATGGCTACAGGCCATTCAACTGAATTCGACTATGATAC   ACATAGACGTGACGCATAGAAGCAAAAGCAATCGAATTCCTAAC	PCR PCR RT-PCR RT-PCR RT-PCR RT-QPCR RT-QPCR RT-QPCR RT-QPCR RT-QPCR RT-QPCR RT-QPCR RT-QPCR RT-QPCR RT-QPCR PCR PCR PCR	35S::miR156a Generation of 35S::miR156a At-SPL2 At-SPL2 At-SPL6 At-SPL6 At-SPL2, total mRNA At-SPL2, REF At-SPL2, IR At-SPL2, IR At-SPL2, total & REF & IR At-SPL6, total & REF & IR At-SPL6, REF At-SPL6, IR AT-SPL6, IR AT-SPL6, IR AT-SPL6, IR AT-SPL6, IR Generation of C1, C2 and C3 minigenes Generation of C1, C2 and C3 minigenes
79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96	R   F, E3   R, E5   F, E2   R, E4   F, E3-4j   F, E3   F, E1   R. E3   F, E2   R, E2	TACAAAAAAGCAGGCTCCACTCTTTGTCTTCTCCAGTTAAAAC   GCTGGGTCTAGATATCTCGACAAGAGAGACAGAGAAAG   CTGAGTTTGATGAGAAAAACG   TACGGGTTGGAGGTTGCTTGAGG   GGCATAGAGTTGCGAGGCT   TGGTTGGGTGGGTGATTGA   TTTCCGATACCGAGCACAATAG   ATCCTGGAAGGACATATGATG   CATTTCATGTAGTTTTGGGG   TACGGGTTGGAGGTGCTTGAGG   GAAGACGACCACCGTACAAGT   TCGGCACCTCTCAAGATGTAG   TCTCTGCCTTTCCCTATCCA   TGGTTGGGTGGGTGGATTGA   AAACCATGGCTTTTCGGTTCATCATTATAAG   AAAGGATCCCTTGGCCCATTCAACTGATAAC   TTCTATGCGTCACGTCTATGTTGGGAATTTCGACTATGATAC	PCR     PCR     RT-PCR     RT-PCR     RT-PCR     RT-qPCR     RT-qPCR     RT-qPCR     RT-qPCR     RT-qPCR     RT-qPCR     RT-qPCR     RT-qPCR     PCR     PCR     PCR	35S::miR156a Generation of 35S::miR156a At-SPL2 At-SPL2 At-SPL6 At-SPL6, at-SPL2, total mRNA At-SPL2, total mRNA At-SPL2, REF At-SPL2, REF At-SPL2, IR At-SPL2, total & REF & IR At-SPL6, total mRNA At-SPL6, REF At-SPL6, IR AT-SPL6, total & REF & IR Generation of C1, C2 and C3 minigenes Generation of C1, C2 and C3 minigenes
79 80 81 82 83 84 85 86 87 87 88 89 90 91 92 93 94 95 95 96 97	F R F, E3 R, E5 F, E2 R, E4 F, E4 F, E3-4j F, E3-4j F, E3-4j F, E3-4j F, E4 F, E3-4j F, E4 F, E3-4j F, E1 R. E3 F, E2 F, E2 F, E2	TACAAAAAAGCAGGCTCCACTCTTTGTCTTCTCCAGTTAAAAC   GCTGGGTCTAGATATCTCGACAAGAGAGAGAGAGAGAAAG   CTGAGTTTGATGAGAAAGAAACG   TACGGGTTGGAGGTTGCTTGAGG   GGCATAGAGTTGCGAGGCT   TGGTTGGGTGGATGATTGA   TTTCCGATACCGAGCACAATAG   ATCCTGGAAGACATATGATG   CATTTCATGTAGCAGGCTTTGGGG   TACGGGTTGGAGTTTTGGGG   TACCGGGTTGGAGTTTGGGG   GAGACGACCACCGTACAAATAG   TCCCGGACCACCGTACTGAGG   GAAGACGACCACCGTACAAGT   TCGCCACCTCTCAAGATGTAG   TCTCTGCCTTTTCCCTATCCA   TGGTTGGGTTGGGTGATTGA   AAACCATGGCTTTTCGGGTCATCATTATAAG   AAACCATGGCTCACGTCTATGTTGGGAATTTCGACTATGATAC   ACATAGACGTGACGCATAGAAGCAAAGCAAATCGAATTCCTAAC   AAAGGATCCCTTGGCCCATTCAGCAAAGCAAATCGAATTCCTAAC	PCR   PCR   RT-PCR   RT-PCR   RT-PCR   RT-qPCR   RT-qPCR   RT-qPCR   RT-qPCR   RT-qPCR   RT-qPCR   RT-qPCR   RT-qPCR   PCR   PCR   PCR   PCR   PCR	35S::miR156a Generation of 35S::miR156a At-SPL2 At-SPL2 At-SPL6 At-SPL6 At-SPL2, total mRNA At-SPL2, REF At-SPL2, REF At-SPL2, IR At-SPL2, IR At-SPL2, total & REF & IR At-SPL6, total mRNA At-SPL6, REF At-SPL6, IR AT-SPL6, total & REF & IR Generation of C1, C2 and C3 minigenes Generation of C1, C2 and C3 minigenes
79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97	F R F, E3 R, E5 F, E2 R, E4 F, E4 F, E3-4j F, E3-4j F, E3-4j F, I3 R, E4 F, E3-4j F, E3 R, E4 F, E1 R. E3 F, E2 R, E2 F, E2	TACAAAAAAGCAGGCTCCACTCTTTGTCTTCTCCAGTTAAAAC   GCTGGGTCTAGATATCTCGACAAGAGAGACAGAGAAAG   CTGAGTTTGATGAGAAAGAAACG   TACGGGTTGGAGGTTGCTTGAGG   GGCATAGAGTTGCGAGGCT   TGGTTGGGTGGATGGATTGA   TTTCCGATACCGAGCACAATAG   ATCCTGGAAGGACATATGATG   CATTTCATGTAGTTTGGGGG   TACGGGTTGGAGGTGCTTGAGG   GAAGACGACCACCGTACAAGAG   CATTTCATGTAGTTTGGGGG   TACGGGTTGGAGGTGCTTGAGG   GAAGACGACCACCGTACAAGT   TCGCCACCTCCAAGATGTAG   TCTCTGCCTTTTCCCTATCCA   TGGTTGGGTTGGGTGATTGA   AAACCATGGCTTTTCGGGTCATCATTATAAG   AAAGGATCCCTTGGCCCATTCAACTGATAAC   TTCTATGCGTCACGTCTATGTTGGGAATTTCGACTATGATAC   AAAGGATCGCGCATAGAAGCAAAGCAATCGAATTCCTAAC   AAAGAATGAGACATGTGTACGTCAGCAAGTTCGGGAGGTGAAG	PCR   PCR   RT-PCR   RT-PCR   RT-PCR   RT-qPCR   RT-qPCR   RT-qPCR   RT-qPCR   RT-qPCR   RT-qPCR   RT-qPCR   RT-qPCR   RT-qPCR   PCR   PCR   PCR   PCR   PCR   PCR	35S::miR156a Generation of 35S::miR156a At-SPL2 At-SPL2 At-SPL6 At-SPL6, total mRNA At-SPL2, total mRNA At-SPL2, REF At-SPL2, IR At-SPL6, total & REF & IR At-SPL6, total mRNA At-SPL6, total & REF & IR Generation of C1, C2 and C3 minigenes Generation of C1, C2 and C3 minigenes
79 80 81 82 83 84 85 86 87 88 99 91 92 93 94 95 96 97 98	F R F, E3 R, E5 F, E2 R, E4 F, E4 F, E3-4j F, I3 R. E5 F, E4 F, E3-4j F, I3 R, E4 F, E1 R. E3 F, E2 R, E2 R, E2 R, E2	TACAAAAAAGCAGGCTCCACTCTTTGTCTTCTCCAGTTAAAAC   GCTGGGTCTAGATATCTCGACAAGAGAGAGAGAGAGAAAG   CTGAGTTTGATGAGAAGAAACG   TACGGGTTGGAGGTTGCTTGAGG   GGCATAGAGTTGCGAGGCT   TGGTTGGGTGGGTGGATTGA   TTTCCGATACCGAGCACAATAG   ATCCTGGAAGGACATATGATG   CATTTCATGTAGTTTGGGGG   GAAGACGACCACCGACAATAG   ATCCTGGAAGGACATATGATG   CATTTCATGTAGTTTTGGGG   GAAGACGACCACCGTACAAGT   TCGCGCTCCAAGATGTGAGG   GAAGACGACCACCGTACAAGT   TCGCACCTCCAAGATGTAG   TCTCTGCCTTTTCCCTATCCA   TGGTTGGGTTGGGTGATTGA   AAACCATGGCTTTTCCGTTCATCATCATTATAAG   AAACCATGGCTTTGCGCCATTCAACTGATAAC   TTCTATGCGTCACGTCTATGTTGGGAATTTCGACTATGATAC   AAAGGATCCCTTGGCCCATTGAGAGCAAAAGCAATCGAATTCCTAAC   ACATAGACGTGACGCATAGAAGCAAAAGCAATCGAATTCCTAAC   AAGAATGAGACATGTGTACGTCAGCAAGTTCGGGAGAGTGAAG   ACGTACACATGTCTCATTCTTTGGCGAGTATCATAGTCGAAATTC	PCR   PCR   RT-PCR   RT-PCR   RT-PCR   RT-qPCR   RT-qPCR   RT-qPCR   RT-qPCR   RT-qPCR   RT-qPCR   RT-qPCR   RT-qPCR   PCR   PCR   PCR   PCR   PCR   PCR   PCR   PCR   PCR	35S::miR156a Generation of 35S::miR156a At-SPL2 At-SPL2 At-SPL6 At-SPL6 At-SPL2, total mRNA At-SPL2, total mRNA At-SPL2, REF At-SPL2, IR At-SPL2, IR At-SPL6, total & REF & IR At-SPL6, REF At-SPL6, REF At-SPL6, IR AT-SPL6, total & REF & IR Generation of C1, C2 and C3 minigenes Generation of C1, C2 and C3 minigenes
79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98	R   F, E3   R, E5   F, E2   R, E4   F, E4   F, E3-4j   F, E3   F, E4   F, E3-4j   F, E4   F, E3   R, E4   F, E1   R. E3   F, E2   R, E2   F, E2   R, E2   R, E2   R, E2   R, E2	TACAAAAAAGCAGGCTCCACTCTTTGTCTTCTCCAGTTAAAAC   GCTGGGTCTAGATATCTCGACAAGAGAGAGAGAGAGAAAG   CTGAGTTTGATGAGAAAAACG   TACGGGTTGGAGGTTGCTTGAGG   GGCATAGAGTTGCGAGGCT   TGGTTGGGTGGGTGATTGA   TTTCCGATACCGAGCACAATAG   ATCCTGGAAGGACATATGATG   CATTTCATGTAGTTTGGGGG   TACGGGTTGGAGGTGCTTGAGG   GAAGACGACCACCGTACAAGG   CATTTCATGTAGATGTTGGAGG   GAAGACGACCACCGTACAAGT   TCGCACCTCCAAGATGTAG   TCGCACCTCCAAGATGTAG   TCGCACCTCTCAAGATGTAG   TCGCGCTTTTCCCTATCCA   TGGTTGGGTTGGGTGATTGA   AAACCATGGCTTTTCCGGTCATCATCATTATAAG   AAACCATGGCTACAGGCCATTCAACTGAATTCGACTATGATAC   ACATAGACGTGACGCATAGAAGCAAAGCAATCGAATTCCTAAC   AAAGAATGAGACATGTGTACGTCAGCAAGGTTCGGGAGAGTGAAG   ACGTACACATGTCTCATTCTTTGGCGAGTATCATAGTCGAAATCC	PCR   PCR   RT-PCR   RT-PCR   RT-PCR   RT-qPCR   RT-qPCR   RT-qPCR   RT-qPCR   RT-qPCR   RT-qPCR   RT-qPCR   PCR   PCR   PCR   PCR   PCR   PCR	35S::miR156a Generation of 35S::miR156a At-SPL2 At-SPL2 At-SPL6 At-SPL6 At-SPL6, total mRNA At-SPL2, total mRNA At-SPL2, IR At-SPL2, IR At-SPL6, total & REF & IR At-SPL6, total & REF & IR At-SPL6, IR AT-SPL6, IR AT-SPL6, IR AT-SPL6, total & REF & IR Generation of C1, C2 and C3 minigenes Generation of C1, C2 and C3 minigenes
79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 92 93 94 95 96 97 98	F R F, E3 R, E5 F, E2 R, E4 F, E4 F, E3-4j F, E3-4j F, E3-4j F, E3-4j F, E4 F, E3-4j F, E4 F, E3-4j F, E4 F, E3 R, E4 F, E1 R. E3 F, E2 R, E2 R, E2 F, E2 R, E2	TACAAAAAAGCAGGCTCCACTCTTTGTCTTCTCCAGTTAAAAC   GCTGGGTCTAGATATCTCGACAAGAGAGAGAGAGAGAAG   CTGAGTTTGATGAGAAAGAAACG   TACGGGTTGGAGGTTGCTTGAGG   GGCATAGAGTTGCGAGGCT   TGGTTGGGTTGGGTGATTGA   TTTCCGATACCGAGCACAATAG   ATCCTGGAAGACATATGATG   CATTTCAGAGACATATGATG   CATTTCATGTAGGTTGCTTGAGG   GAAGACGACCACCGTACAAGT   TCGCACCTCTCAAGATTTGGGG   TACGGGTTGGGTGATTGA   GAAGACGACCACCGTACAAGT   TCGCACCTCTCAAGATGTAG   TCTCTGCCTTTTCCCTATCCA   TGGTTGGGTGGGTGATTGA   AAACCATGGCTTTTCGGGTCATCATATATAAG   AAACCATGGCTTTGGCCCATTCAACTGATAAC   TTCTATGCGTCACGTCTATGTTGGGAAATTCGACTATGATAC   ACATAGACGTGACGCATAGAAGCAAAAGCAATCGAATTCCTAAC   AAAGAATGAGACATGTGTACGTCAGCAGTTGGGAGAGTGAAG   ACGTACACATGTCTCATTCTTTGGCGAGTATCATAGTCGAAATTC	PCR   PCR   RT-PCR   RT-PCR   RT-PCR   RT-qPCR   RT-qPCR   RT-qPCR   RT-qPCR   RT-qPCR   RT-qPCR   RT-qPCR   PCR   PCR   PCR   PCR   PCR   PCR   PCR	35S::miR156a Generation of 35S::miR156a At-SPL2 At-SPL2 At-SPL6 At-SPL6 At-SPL2, total mRNA At-SPL2, REF At-SPL2, REF At-SPL2, IR At-SPL2, IR At-SPL2, total & REF & IR At-SPL6, total & REF & IR At-SPL6, total & REF & IR Generation of C1, C2 and C3 minigenes Generation of C1, C2 and C3 minigenes
79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99	R   F, E3   R, E5   F, E2   R, E4   F, E3-4j   F, E3   F, E4   F, E3-4j   F, E1   R. E3   F, E2   R, E2   F, E2	TACAAAAAAGCAGGCTCCACTCTTTGTCTTCTCCAGTTAAAAC   GCTGGGTCTAGATATCTCGACAAGAGAGAGAGAGAGAGAG	PCR   PCR   RT-PCR   RT-PCR   RT-PCR   RT-qPCR   RT-qPCR   RT-qPCR   RT-qPCR   RT-qPCR   RT-qPCR   RT-qPCR   RT-qPCR   PCR   PCR	35S::miR156a Generation of 35S::miR156a At-SPL2 At-SPL2 At-SPL6 At-SPL6 At-SPL2, total mRNA At-SPL2, REF At-SPL2, REF At-SPL2, IR At-SPL2, IR At-SPL2, total & REF & IR At-SPL6, total mRNA At-SPL6, REF At-SPL6, IR AT-SPL6, total & REF & IR Generation of C1, C2 and C3 minigenes Generation of C1, C2 and C3 minigenes
79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100	R   F, E3   R, E5   F, E2   R, E4   F, E3-4j   F, E3-4j   F, E4   F, E4   F, E4   F, E4   F, E3-4j   F, E3   R, E4   R, E4   R, E4   R, E4   F, E1   R, E2   R, E2   R, E2   R, E2   F, E2   R, E2	TACAAAAAAGCAGGCTCCACTCTTTGTCTTCTCCAGTTAAAAC   GCTGGGTCTAGATATCTCGACAAGAGAGACAGAGAAAG   CTGAGTTTGATGAGAAAGAAACG   TACGGGTTGGAGGATGCTTGAGG   GGCATAGAGTTGCGAGGCT   TGGTTGGGTGGATGGATTGA   TTTCCGATACCGAGCACAATAG   ATCCTGGAAGGACATATGATG   CATTTCATGTAGTTTGGGG   GAGACACACGAGACAATAG   ATCCTGGAAGGACATATGATG   CATTTCATGTAGGTTGCTTGAGG   GAAGACGACCACCGTACAAGT   TCGCACCTCCAAGGTGCTTGAGG   GAAGACGACCACCGTACAAGT   TCGCCACCTCCAAGATGTAG   TCTCTGCCTTTTCCCTATCCA   TGGTTGGGTTGGGTGATTGA   AAACCATGGCTTTTCCGGTCATCATCATTATAAG   AAAAGGATCCCTTGGCCCATTCAACTGATAAC   TTCTATGCGTCACGTCTATGTTGGGAAATTCCGAAATCCAAAGCAATCGAATTCCTAAC   AAAGAATGAGACATGTGTACGTCAGCAAAGCAATCGGAGAGTGAAG   ACGTACACATGTCTCATTCTTTGGCGAGTATCATAGTCGGAAAAC   AAGAATGAGACATGTGTACGTCAGCTGTGTAAGAGTCTGGTAAAAC	PCR   PCR   RT-PCR   RT-PCR   RT-PCR   RT-qPCR   RT-qPCR   RT-qPCR   RT-qPCR   RT-qPCR   RT-qPCR   RT-qPCR   RT-qPCR   PCR	35S::miR156a Generation of 35S::miR156a At-SPL2 At-SPL2 At-SPL6 At-SPL6, total mRNA At-SPL2, total mRNA At-SPL2, REF At-SPL2, IR At-SPL6, total & REF & IR At-SPL6, total mRNA At-SPL6, total & REF & IR Generation of C1, C2 and C3 minigenes Generation of C1, C2 and C3 minigenes
79 80 81 82 83 84 85 86 87 88 99 91 92 93 94 95 96 97 98 99 100	R   F, E3   R, E5   F, E2   R, E4   F, E3-4j   F, E3   F, E4   F, E3-4j   F, E4   F, E3   R, E4   F, E1   R. E3   F, E2   R, E2	TACAAAAAAGCAGGCTCCACTCTTTGTCTTCTCCAGTTAAAAC   GCTGGGTCTAGATATCTCGACAAGAGAGACAGAGAAAG   CTGAGTTTGATGAGAAAGAAACG   TACGGGTTGGAGGTTGCTTGAGG   GGCATAGAGTTGCGAGGCT   TGGTTGGGTTGGGTGATTGA   TTTCCGAACCAAGCACAATAG   ATCCTGGAAGGACATATGATG   CATTTCATGTAGTTTGGGGG   GAAGACGACCACCGACAATAG   ATCCTGGAAGGACATATGATG   CATTTCATGTAGTTTTGGGG   GAAGACGACCACCGTACAAGT   TCGCACCTCCAAGATGTAG   TCGCACCTCCAAGATGTAG   TCTCTGCCTTTTCCCTATCCA   TGGTTGGGTTGGGTGATTGA   TCTCTGCCTTTTCCCTATCCA   TGGTTGGGTTGGGTGATTGA   AAACCATGGCTTTTCCGGTCATCATCATTATAAG   AAACCATGGCTTTGCGCCATTCAACTGATAAC   TTCTATGCGTCACGTCTATGTTGGGAAATTCGAAATCGAATTCCTAAC   AAAGAATGAGACATGTGTACGTCAGCAAGCAATCGAATTCCTAAC   AAGAATGAGACATGTGTACGTCAGCAAGTTCGGGAGAGTGAAG   ACGTACACATGTCTCATTCTTGCGGAGCAACTTTCAAGACTCGGTAAAAC   ACGTACACATGTCTCATTCTTGCTGAACAATCTTTCAAGATC	PCR   PCR   RT-PCR   RT-PCR   RT-PCR   RT-qPCR   RT-qPCR   RT-qPCR   RT-qPCR   RT-qPCR   RT-qPCR   RT-qPCR   RT-qPCR   PCR   PCR	35S::miR156a Generation of 35S::miR156a At-SPL2 At-SPL2 At-SPL6 At-SPL6 At-SPL2, total mRNA At-SPL2, total mRNA At-SPL2, REF At-SPL2, IR At-SPL6, total & REF & IR At-SPL6, total & REF & IR At-SPL6, REF At-SPL6, IR AT-SPL6, IR AT-SPL6, total & REF & IR Generation of C1, C2 and C3 minigenes Generation of C1, C2 and C3 minigenes

F, forward; R, reverse; E, exon; I, intron; j, junction.