

**Table S1.** List of oligonucleotides used in this study.

a. List of oligonucleotides used for the analysis of the mRNA profiles of wild type and mutant plants by RT-qPCR experiments.

gene target	oligo name	sequence (5'-to-3')
<i>AOX1A</i>	<i>aox1aF</i>	AGCATCATGTTCCAACGACGTTTC
	<i>aox1aR</i>	GCTCGACATCCATATCTCCTCTGG
<i>AOX1B</i>	<i>aox1bF</i>	GGACCGTGAAATCTCTTCGATGGC
	<i>aox1bR</i>	TCTAGCATCATTGCTCTGCATCCG
<i>AOX1C</i>	<i>aox1cF</i>	TCTTCCAGAGGAGGTATGGTTGCC
	<i>aox1cR</i>	AGTGCATAAGCATCCCTCCAACC
<i>AOX1D</i>	<i>aox1dF</i>	TTTGCTCGAAGAGGCTGAGAACG
	<i>aox1dR</i>	CTCGTTCGTACCATTGGGTTGTG
<i>AOX2</i>	<i>aox2F</i>	ACGGTGATTTCGTGCTGATGAAGC
	<i>aox2R</i>	TCCTTGATTGCGAATGTCAGAAGC
<i>NDA1</i>	<i>nda1F</i>	GTATCCAACCGCGATTTCACG
	<i>nda1R</i>	AGTTACAGTCTCACAATGCACCTC
<i>NDA2</i>	<i>nda2F</i>	TGGTGTGGTCTTCTCCTTTCG
	<i>nda2R</i>	TCCATTTCGTCAATGCCAATCCTTC
<i>NDB1</i>	<i>ndb1F</i>	TAACACATTGGCACTCCTGGTG
	<i>ndb1R</i>	CTCTGTGCATCCTCTACTTCCTTG
<i>atp1</i>	<i>atp1F</i>	TCACTTCGACACGCTTTTGC
	<i>atp1R</i>	GGAATGGCCTTGAATCTTGA
<i>atp6</i>	<i>atp6-1F</i>	TCTTTTGCGAGTCAATGCAC
	<i>atp6-1R</i>	TCTCGCGTATCTCACATTGC
<i>atp8</i>	<i>atp8F</i>	CCGTCGACTTATTGGGAAAA
	<i>atp8R</i>	TTCCTTGGCCATGTACAACA
<i>atp9</i>	<i>atp9F</i>	CATTCCCTCTGACGTGCAAT
	<i>atp9R</i>	TCGTCGATTCTTACCCTCGT
<i>atp4</i>	<i>atp4F</i>	GGATCAGCTTGCGAATTTGT
	<i>atp4R</i>	GCAAATTGCTTCCCCACTAA
<i>ccmb</i>	<i>ccmBF</i>	TCTTGGAATCACATCCAGCA
	<i>ccmBR</i>	CGAGACCGAAATTGGAAAAA
<i>ccmc</i>	<i>ccmCF</i>	AGCTACGCGCAAATTCTCAT
	<i>ccmCR</i>	GCCGTGGCGATATAAACAAT
<i>ccmfc</i>	<i>ccmFcF</i>	CACATGGAGGAGTGTGCATC
	<i>ccmFcR</i>	GTGGGTCCATGTAAATGATCG
<i>ccmfn-1</i>	<i>ccmFN1F</i>	AGCTCTTGGCATTGCTTTGT
	<i>ccmFN1R</i>	AGTGCCACAATCCCATTCTAT
<i>ccmfn-2</i>	<i>ccmFN2F</i>	CGTGTCGTTCTGTAATGGAAA
	<i>ccmFN2R</i>	TGATAAGCCCACCAACTTCC
<i>cob</i>	<i>cobF</i>	TGCCGGAATGGTATTTCCTA
	<i>cobR</i>	GCCAAAAGCAACCAAAACAT
<i>cox1</i>	<i>cox1F</i>	GTAGCTGCGGTGAAGTAGGC
	<i>cox1R</i>	CTGCCTGGATTTCGGTATCAT
<i>cox2</i>	<i>cox2F</i>	TGATGCTGTACCTGGTTCGTT

	<i>cox2R</i>	TGGGGGATTAATTGATTGGA
<i>cox3</i>	<i>cox3F</i>	CCGTAACTTGGGCTCATCAT
	<i>cox3R</i>	AAACCATGAAAGCCTGTTGC
<i>mttb</i>	<i>mttBF</i>	GGGGTCTTTCTTTGGAAACC
	<i>mttBR</i>	TCTCCCTCATTCCACTCGTC
<i>nad1 exons a-b</i>	<i>nad1 1-2F</i>	GACCAATAGATACTTCATAAGAGACCA
	<i>nad1 1-2R</i>	TTGCCATATCTTCGCTAGGTG
<i>nad1 exons b-c</i>	<i>nad1 2-3F</i>	ATTCAGCTTCCGCTTCTGG
	<i>nad1 2-3R</i>	TCTGCAGCTCAAATGGTCTC
<i>nad1 exons c-d</i>	<i>nad1 3-4F</i>	AAAAGAGCAGACCCCATTTGA
	<i>nad1 3-4R</i>	TCCGTTTGATCTCCCAGAAG
<i>nad1 exons d-e</i>	<i>nad1 4-5F</i>	AGCCCGGGATCTTCTTGA
	<i>nad1 4-5R</i>	TCTCAATGGGGTCTGCTC
<i>nad2 exons a-b</i>	<i>nad2 exons a-bF</i>	GCGAGCAGAAGCAAGGTTAT
	<i>nad2 exons a-bR</i>	GGATCCTCCCACACATGTTT
<i>nad2 exons b-c</i>	<i>nad2 exons b-cF</i>	AAAGGAACTGCAGTGATCTTGA
	<i>nad2 exons b-cR</i>	AATATTTGATCTTAGGTGCATTTTC
<i>nad2 exons c-d</i>	<i>nad2 exons c-dF</i>	GCGCAATAGAAAGGAATGCT
	<i>nad2 exons c-dR</i>	CTATGGGTCTACTGGAGCTACCC
<i>nad2 exons d-e</i>	<i>nad2 exons d-eF</i>	CAAAGGAGAGGGGTATAGCAA
	<i>nad2 exons d-eR</i>	TATTGTCTCTCGCCGCTTT
<i>nad3</i>	<i>nad3F</i>	CGAATGTGGTTTCGATCCTT
	<i>nad3R</i>	GCACCCCTTTTCCATTGATA
<i>nad4 exons a-b</i>	<i>nad4 exons a-bF</i>	ATTCTATGTTTTTCCCGAAAGC
	<i>nad4 exons a-bR</i>	GAAAAACTGATATGCTGCCTTG
<i>nad4 exons b-c</i>	<i>nad4 exons b-cF</i>	AATACCCATGTTTCCCGAAG
	<i>nad4 exons b-cR</i>	TGCTACCTCCAATTCCTGT
<i>nad4 exons c-d</i>	<i>nad4 exons c-dF</i>	TTCCCTCCATAAATTCTCCGATT
	<i>nad4 exons c-dR</i>	TGAAATTTGCCATGTTGCAC
<i>nad4L</i>	<i>nad4L-F</i>	GGGGAATCCTCCTTAATAGACG
	<i>nad4L-R</i>	AACGAAAATGGCTAACCCAATA
<i>nad5 exons a-b</i>	<i>nad5 exons a-bF</i>	TGGACCAAGCTACTTATGGATG
	<i>nad5 exons a-bR</i>	CCATGGATCTCATCGGAAAT
<i>nad5 exons b-c</i>	<i>nad5 exons b-cF</i>	TACCTAAACCAATCATCATATC
	<i>nad5 exons b-cR</i>	CTGGCTCTCGGGAGTCTCTT
<i>nad5 exons c-d</i>	<i>nad5 exons c-dF</i>	AACTCGGATTCGGCAAGAA
	<i>nad5 exons c-dR</i>	GATATGATGATTGGTTTAGGTA
<i>nad5 exons d-e</i>	<i>nad5 exons d-eF</i>	AACATTGCAAAGGCATAATGA
	<i>nad5 exons d-eR</i>	GTTCTCGGTTTCGGATATG
<i>nad6</i>	<i>nad6F</i>	TATGCCGGAAGGTACGAAG
	<i>nad6R</i>	GTGAGTGGGTCAGTCGTCCT
<i>nad7 exons a-b</i>	<i>nad7 exons a-bF</i>	ACCTCAACATCCTGCTGCTC
	<i>nad7 exons a-bR</i>	AAGGTAAAGCTTGAAGATAAGTTTTGT
<i>nad7 exons b-c</i>	<i>nad7 exons b-cF</i>	GAGGGACTGAGAAATTAATAGAGTACA
	<i>nad7 exons b-cR</i>	TGGTACCTCGCAATTCAAAA
<i>nad7 exons c-d</i>	<i>nad7 exons c-dF</i>	ACTGTCACTGCACAGCAAGC
	<i>nad7 exons c-dR</i>	CATTGCACAATGATCCGAAG

<i>nad7</i> exons d-e	<i>nad7</i> exons d-eF	GATCAAAGCCGATGATCGTAA
	<i>nad7</i> exons d-eR	AGGTGCTTCAACTGCGGTAT
<i>nad9</i>	<i>nad9F</i>	GGATGACCCTCGAAACCATA
	<i>nad9R</i>	CACGCATTCTGTACAAACC
<i>rpl2</i>	<i>rpl2F</i>	CCGAAGACGGATCAAGGTAA
	<i>rpl2R</i>	CGCAATTCATCACCATTTTG
<i>rpl5</i>	<i>rpl5F</i>	AAGGGGTTCGACAGGAAAGT
	<i>rpl5R</i>	CGTATTTTCGACCGGAAAATC
<i>rpl16</i>	<i>rpl16F</i>	GAGCATTTGCCAAACTCACA
	<i>rpl16R</i>	CGGACACTTTCATCGTGCTA
<i>rps3</i>	<i>rps3F</i>	CCGATTTTCGGTAAGACTTGG
	<i>rps3R</i>	AGCCGAAGGTGAGTCTCGTA
<i>rps4</i>	<i>rps4F</i>	ACCCATCACAGAGATGCACA
	<i>rps4R</i>	TCACACAAACCCTTCGATGA
<i>rps7</i>	<i>rps7F</i>	CTCGAACTGAACGCGATGTA
	<i>rps7R</i>	AAGCTGCTTCAAGGATCCAA
<i>rps12</i>	<i>rps12F</i>	AGCCAAAGTACGGTTGAGCA
	<i>rps12R</i>	TTTGGGTTTTTCTGCACCAT
<i>matR</i>	<i>matR-F</i>	AATTTTTGCGAGAGCTGGAA
	<i>matR-R</i>	TTGAACCCCGTCTGTAGAC
<i>rrn18</i>	<i>rrn18F</i>	CGTCACCTGGGTCAAAAACCT
	<i>rrn18R</i>	GCTTGAAAACCGAAGTGAGC
<i>rrn26</i>	<i>rrn26F</i>	GACGAGACTTTCGCCTTTTG
	<i>rrn26R</i>	CTTGGAGCGAATTGGATGAT
<i>rrn5</i>	<i>rrn5F</i>	CCGACCTCGATATGTGGAATCGTC
	<i>rrn5R</i>	TGGACCATGTCTCCCGAACAATC
<i>18S rRNA</i> (nuclear)	<i>18S nucl-F</i>	AAACGGCTACCACATCCAAG
	<i>18S nucl-R</i>	ACTCGAAAGAGCCCGGTATT
<i>actin2</i> (At3g18780, nuclear)	<i>actin2-F</i>	GGTAACATTGTGCTCAGTGGTGG
	<i>actin2-R</i>	AACGACCTTAATCTTCATGCTGC
<i>GAPDH</i>	<i>GAPDH-F</i>	TCTCGATCTCAATTCGCAAAA
	<i>GAPDH-R</i>	CGAAACCGTTGATTCCGATTC

b. List of oligonucleotides used for the analysis of the splicing profiles of wild type and mutant plants by RT-qPCR experiments.

Gene	Forward primer	Reverse primer
<i>rpl2</i>	CCGAAGACGGATCAAGGTAA	CGCAATTCATCACCATTTTG
<i>rpl2</i> intron exon2	TTAGGAAGAGCCGTACGAGG	CGCAATTCATCACCATTTTG
<i>rps3</i>	AGCCGAAGGTGAGTCTCGTA	CCGATTTTCGGTAAGACTTGG
<i>rps3</i> intron1 exon2	AGCCGAAGGTGAGTCTCGTA	TCTACGGCGGGGTCACTAT
<i>cox2</i>	TGGGGGATTAATTGATTGGA	TGATGCTGTACCTGGTCGTT
<i>cox2</i> intron1 exon2	TGGGGGATTAATTGATTGGA	AGCAGTACGAGCTGAAAGGC
<i>ccmFc</i>	GTGGGTCCATGTAAATGATCG	CACATGGAGGAGTGTGCATC
<i>ccmFc</i> intron1 exon1	CCCGGATCGAATCAGAGTT	CACATGGAGGAGTGTGCATC
<i>nad1</i> exon1-2	GACCAATAGATACTTCATAAGAGACCA	TTGCCATATCTTCGCTAGGTG
<i>nad1</i> intron1 exon2	GACCAATAGATACTTCATAAGAGACCA	CGTGCTCGTACGGTTCATAG
<i>nad1</i> exon2-3	ATTCAGCTTCCGCTTCTGG	TCTGCAGCTCAAATGGTCTC

<i>nad1</i> intron2 exon2	GGTTGGGTTAGGGGAACATC	TCTGCAGCTCAAATGGTCTC
<i>nad1</i> exon3-4	AAAAGAGCAGACCCCATTTGA	TCCGTTTGATCTCCCAGAAG
<i>nad1</i> intron3 exon4	AAAAGAGCAGACCCCATTTGA	GGGAGCTGTATGAGCGGTAA
<i>nad1</i> exon4-5	AGCCCGGGATCTTCTTGA	TCTTCAATGGGGTCTGCTC
<i>nad1</i> intron4 exon5	AGCCCGGGATCTTCTTGA	ACGGAGCTGCATCCCTACT
<i>nad2</i> exon1-2	GCGAGCAGAAGCAAGTTAT	GGATCCTCCCACACATGTTT
<i>nad2</i> intron1 exon2	GCGAGCAGAAGCAAGTTAT	CCCATTCCTAACCAAGTGGAG
<i>nad2</i> exon2-3	AAAGGAACTGCAGTGATCTTGA	AATATTTGATCTTAGGTGCATTTTC
<i>nad2</i> intron2 exon2	CCCGATCCGATAGTTTACAA	AATATTTGATCTTAGGTGCATTTTC
<i>nad2</i> exon3-4	GCGCAATAGAAAGGAATGCT	CTATGGGTCTACTGGAGCTACCC
<i>nad2</i> intron3 exon4	GCGCAATAGAAAGGAATGCT	GGCGAATTTCAAACCTTGTTG
<i>nad2</i> exon4-5	CAAAGGAGAGGGGTATAGCAA	TATTTGTTCTTCGCCGCTTT
<i>nad2</i> intron4 exon4	CTTATTCGTGGCAACCTTCC	TATTTGTTCTTCGCCGCTTT
<i>nad4</i> exon1-2	ATTCTATGTTTTTCCCGAAAGC	GAAAAACTGATATGCTGCCTTG
<i>nad4</i> intron1 exon2	CCGTATGATGCGGAAGTCTC	GAAAAACTGATATGCTGCCTTG
<i>nad4</i> exon2-3	AATACCCATGTTTCCCGAAG	TGCTACCTCCAATTCCCTGT
<i>nad4</i> intron2 exon3	GCGGAACGACCAGAAAAATA	TGCTACCTCCAATTCCCTGT
<i>nad4</i> exon3-4	TTCTCCATAAATTCTCCGATT	TGAAATTTGCCATGTTGCAC
<i>nad4</i> intron3 exon4	TCTAGCTTGGTTCCGAGAGC	TGAAATTTGCCATGTTGCAC
<i>nad5</i> exon1-2	TGGACCAAGCTACTTATGGATG	CCATGGATCTCATCGGAAAT
<i>nad5</i> intron1 exon2	TGGACCAAGCTACTTATGGATG	TTCGCAAATAGGTCCGACT
<i>nad5</i> exon2-3	TACCTAAACCAATCATCATATC	CTGGCTCTCGGGAGTCTCTT
<i>nad5</i> intron2-exon2	GTACGATCGTGTCGGGTGA	CTGGCTCTCGGGAGTCTCTT
<i>nad5</i> exon3-4	AACTCGGATTCGGCAAGAA	GATATGATGATTGGTTTAGGTA
<i>nad5</i> intron3-exon4	AACTCGGATTCGGCAAGAA	GCCGTGTAATAGGCGACCA
<i>nad5</i> exon4-5	AACATTGCAAAGGCATAATGA	GTTCTGCGTTTCGGATATG
<i>nad5</i> intron4 exon5	AACATTGCAAAGGCATAATGA	CCTGTAAACCCCATGATGT
<i>nad7</i> exon1-2	ACCTCAACATCCTGCTGCTC	AAGGTAAAGCTTGAAGATAAGTTTGT
<i>nad7</i> intron1 exon2	ACGGTTTTTAGGGGGATCTG	AAGGTAAAGCTTGAAGATAAGTTTGT
<i>nad7</i> exon2-3	GAGGGACTGAGAAATTAATAGAGTACA	TGGTACCTCGCAATTCAAAA
<i>nad7</i> intron2 exon3	AGTGGGAGAGCCGTGTTATG	TGGTACCTCGCAATTCAAAA
<i>nad7</i> exon3-4	ACTGTCACTGCACAGCAAGC	CATTGCACAATGATCCGAAG
<i>nad7</i> intron3 exon4	TAAAGTGAAGTGTTGGGCCT	CATTGCACAATGATCCGAAG
<i>nad7</i> exon4-5	GATCAAAGCCGATGATCGTAA	AGGTGCTTCAACTGCGGTAT
<i>nad7</i> intron4 exon5	CGGCCAAATGACTACAGGAT	AGGTGCTTCAACTGCGGTAT

c. List of oligonucleotides used for the analysis of the splicing profiles of wild type and mutant plants by RT-qPCR experiments.

Gene	Forward primer	Reverse primer
<i>misf2</i> (AT3G22670)	ATGCTCACTAAGCTTAGGATTA	ATTATAAGTATGACCTGAATGCA
<i>misf2.1</i> (SALK_067654)	ATTTTGCCGATTTTCGGAAC	ATTATAAGTATGACCTGAATGCA
<i>misf2.2</i> (SALK_066141)	ATTTTGCCGATTTTCGGAAC	ATTATAAGTATGACCTGAATGCA
<i>misf2-GFP</i> ( <i>misf2</i> -B1+ <i>misf2</i> -B2)	GGGGACAAGTTTGTACAAAAAAGC AGGCTAAAATGCTCACTAAGCTTAG GATTAGT	GGGGACCACTTTGTACAAGAAAG CTGGGTCAAGCGTAACAAGCTTA GATTCTTC