

Supplemental Table 1 – Primer pair number and primer sequences used to amplify alternative splicing events on RT-PCR panel with gene ID and localisation of AS event

Primer pair	Gene ID	Localization	Primer Forward (labelled)	Primer Reverse
1	At1g02840	CDS/3'UTR	GGCCCCCGCTCGAAGTCAAGG	GGTAGAGGAGATCTTGATCTTG
2	At1g04400	5'UTR	GGAAGAAAGAAGAGTCAAG	GGATTATCCTCAATCCTTAGG
3	At1g09140	CDS/3'UTR	CCTGCTAGATCCATTTCCCC	GATCTTGATCTTGATTTTG
7	At1g55310	CDS	GGAAGTCGTTTGAGCAGTTTGG	GGTTTCTTTCTGTTCTCTTCTG
12	At1g72320	5'UTR/CDS	CGTCAACTGTGTTTTGCATCC	CATCAAATCCACGGTTACCC
13	At1g79650	CDS	GGAGAACAAAGTTACGGAGG	GGAACAGGTGAAGACTGGG
19	At2g32330	CDS	CTTTTGAATGAGCACTCC	CCGTAGGCAAAGGCAATATCC
21	At2g37340	5'UTR/CDS	GGACCCGAGACCTTGAACG	GGTAATGTCTTGCATCATCAG
23	At2g39730	CDS	CCTCCCGTGTTCGAGCAACCC	CCGTTGGATCAAAGTTTTACGCC
30	At3g53270	5'UTR	CCAACATCATCATCTTCTC	CCACAAACTCGTCTATCAGC
36	At4g12790	5'UTR	GGTTTTGAGAGCAAAGAAAAACG	GGTTAACACATGCATTGTTCCG
42	At5g04430	CDS	CCTTCGAGGAGCAGATGCGGGC	CCTCCAGAACCCTGGGTGC
43	At5g09230	5'UTR	CATCCGCCATTAACGACCTC	CTCACAAACCGTCTGCATCC
44	At5g13730	CDS	GGGTACCAAGGCAAAGTTTTG	GCAATCTCTTACAGCTTGG
47	At5g20250	5'UTR	CCATTCAAATCTCACATTCCC	CCCGTCGGAAATACGAACCGCC
48	At5g35680	5'UTR	CCTAATCACTTTCAACAACCTC	CCGTCAATGCACATAACGTC
49	At5g41150	CDS	CCATCCTGACATGGGTTTTGTC	CCAGTTCCTTTCTCCGCCTGC
50	At5g43910	CDS	GGTTGTGTGATGCTTGAGAG	GGTTGTGTCTATGAGTCCG
51	At5g45510	CDS	GGAGAAAGTTGTTGTAGGAG	GGTGGAGGTACATCACTGTGG
57	At5g63870	5'UTR	GGTCCAAGATCCAAGCTTTGG	GGGAAGGAGGTAGATTCCATG
58	At5g65050	CDS	CAAAGATCATTGATCGTTAC	CTTCACTTCCCCATCATTAGTTC
59	At5g66010	CDS	GGCGGCAGGTCATGTACGG	GGGAAGACCCCTGAGGCGAACG
63	At3g12110	CDS	GGCTCCTCTCAACCCCAAGG	GGTAATCAGTAAGGTCACGG
64	At5g60670	CDS	GTCACCGGAGGTGAGGTCCG	GATGACTAGAGCCGCTGCGG
66	At4g02560	CDS	CGCAAATTGATTCGCAGAGTC	CCACCATCTGTACTTTCTCTGC
68	At1g23970	CDS	CTTGACATGATCCCGATCC	CCATCGCCCAATGCGCCACC
70	At1g54360	CDS	CCTTCCATTCCACAGAATTC	CCAGATTGAGTCAAAGCCCAC
72	At2g04790	CDS	CCCTGAAAGCATAGAAGCAGC	CCCATGACTTATTAACCTCC
73	At2g21620	CDS	CCGGAACCTGAGAGAGAGAGC	CCATGAGGGCTTGCTCGTC
75	At2g36000	CDS/3'UTR	CTCGTTTAGTTTGAGAAATC	CTTCATCAGCATTCAATAC
82	At3g14230	CDS	CCTTTCGTCTTACCAGCAAC	CCAAGCCATTCTCGGGAGCC
86	At4g16845	CDS	GGATTGTTCTTGTCCATTTTG	GCAAGCTCTGTTGCCTCGGG
87	At4g35450	5'UTR	CCACCACAACATTGTCTTTTC	CCAGCGTTAGGAATAGATCTC
89	At4g38510	5'UTR	CCTCTACACAGATCTTTGGATTG	CTTGACCACGTCCGGTAGTTCC
90	At4g39260	CDS	GGTGCTTTGTCCGGCGCCTTG	GGCTTTCTCGTCTTGAAGG
97	At3g61860	CDS	GCGAATTAAGATAAAGATGAGG	GGAAAATTGTGAGTTTGGC
102	At1g27370	5'UTR	CCTCCTTCTACTCTCGCTC	CCCACGGGAACGAAGATACC
103	At1g30500	CDS	CCAACCACCAATCCCTTCTGC	CTTGCTCTTGATTGTCTGCGCC
105	At1g33060	CDS	GGCTAATTTAAGTGCTCAGGGG	GCTACATTTGCGATCACTTG
106	At1g49950	5'UTR	CCTTGATTTCGCATTAACCC	CCAGGTCCATGCTTTATAACTCC
107	At1g59750	CDS	CCGTCTTACAACCTCAGCC	CCCACCATGACCAAACGTAGC
108	At1g30200	3'UTR	GGAACCGTTTGGGACTGTG	GCAGATTCATTGACGCAGG
109	At1g77080	CDS	GATCTTGAAGAAAAAATTCAG	CCTAGCTCTACTTACGGACAG
110	At1g72050	CDS/ 5'UTR	GGTTGATGAGGAGTCTTCAAG	GGACACTTAAAGAGCTTCCC
111	At1g61660	CDS	GGACATGGTCTATGTCTCGTCC	GCTTTAGAGTCTCCAAGCTG
112	At1g09530	5'UTR	CCGTCTTGTGCGTGCATTG	CCTGTCTTGAGCAGATTCAAGC

113	At1g72650	CDS	GGTTTATTGCATTCTGATAATG	GGTGGACTTGATCCTCCTC
116	At1g18660	5'UTR	GGATTCACCTTTAGTACTG	GAGACTCTTTGAATGATTGG
117	At2g22670	CDS	GAAACTGAAGATCATGAAGGG	GAGACGAAATATCTTGAAGG
118	At2g02960	5'UTR	GGGGAGCTTTCACCAATTAG	GCCTTATCATTAACCACCGG
120	At2g41710	CDS	GGCTGCTGCTAGAGCTTACG	GGTCCAGGCATACGACTGG
121	At2g18300	CDS	GGATGCAATAAGGTCACAGG	GGTCTAACGGAAACAATGG
122	At2g36010	CDS	CCAAAGATGGAATGCTGGACC	CTCAGGTCTCTTAATCTTTCC
124	At2g37060	5'UTR	CCCTCTCTGCCTCCTCTCTTCC	CCCATTAGCAGGAAGACCTC
125	At2g46790	CDS/5'UTR	GGATTTGCCATCTATATCTGG	GCTTTGAGCATGAGCAGTAGG
126	At2g34830	CDS	CCGCTATGAACAGCCGGTCC	CCATGGGTGGTTATGCTCAG
127	At2g43010	CDS	CCGGTTATGGATCAGTCTGC	CCGTCGGTGGTCTTCGTCGGC
128	At2g15530	5'UTR	CCCAGAAATTGAACTACC	CCCTTGCATTGGATTCATACC
129	At2g40830	5'UTR	CTAGGGTTTCTCATTCCGATCC	CCGTGAAGGCCGACAGCACGC
130	At2g38185	CDS	GCTTGATTACTCAGAACCAGGG	GAACCGCAGAACCCTGTGG
131	At2g38880	3'UTR	GGCAACATTAGGATTTGAGG	GGAAACAATAACCAAACG
132	At2g31370	3'UTR	CCAACAGCAGCAGCAGCAAC	CCAAAAGGTTTCTTCTACGTACC
133	At2g32250	CDS	CCCATCGATTTCTTCCATCC	CTTCGATGTCATAGCAGCC
134	At3g08505	3'UTR	CTATCAGAGTTCCTTGGTGGCC	CATTGAGTTTCTCCTGTGTCC
135	At3g54480	CDS	GGAGTTACATGAGATCTCAAAG	GATAAATCCTTGACAAAACGG
136	At3g07740	CDS/5'UTR	GGGAAGAAGTGCAGCTTGG	GGTGGAAATTGATGCCGCAG
137	At3g14740	CDS	CCGGAAGTTTACTTTGAGGATCC	CAACAATCTTGACTTTCC
138	At3g10490	CDS/3'UTR	GGAATGGGCTGATGATGAAGG	GGTCCGATTCGATATCCAGTGG
139	At3g04030	CDS	GCACTGCAAATGCAAATAGAGG	GGCAGCTTCGATCCCAGCTG
140	At3g15030	3'UTR	GAAGAGGAGCAGCAGCAGCGG	GGCCATTGACTACACAAACCG
141	At3g51880	CDS	GGGAGTGATGAATCTGAAAAG	GGATCTGCAGTTAAGCTTGAG
142	At3g12250	5'UTR	GGACAACCTTTTACTCAGACAGG	GGTATCAGCCATACTAGTTTCTG
143	At3g12250	CDS/5'UTR	CCCTCTAGTGTGAACTCTGC	CCTTTGATCGATCACTGGAATC
144	At3g23280	CDS	GCACAGTGATGCCTTTGTGG	GGCTGTCACCTCAGTCAAGG
145	At3g17609	CDS	CCAACGACCCAATGGGAATC	CGTTTAGCTGTAGAGACTCC
146	At3g24120	CDS	CCAAGTCACCGAAGCTCTAC	CCAGCAAAAGTAGCAGCTTGC
148	At1g76510	5'UTR	CCGTTTCTCGTCTTTTTTCTC	CCTCTACAACACCTTTGGTACC
149	At2g27230	5'UTR	GGCATGTCCGAGTATGATCG	GACCTTAAAGCTTCTCTTAG
151	At3g47550	CDS	CCTTCTTCGTGCTGCTGTTTTTC	CCTTAACGGAGAATCATTGCC
152	At3g58030	5'UTR	CCATCTCTATTGTAATTAGC	CCCAAGATTCAAATCCAGGTTT
153	At3g59060	CDS	CCATCCCGGTTTAGTATGTC	CCTATTTACCCATATGAAGACTGTC
154	At4g01060	CDS	GGTGCCGTTTGACATGGATAACC	GTCACCGACAAGCTTATGCATTC
155	At4g27050	5'UTR	GGTTCTTCTTTGTGAACAAC	GGGAAACTCCTTAGACAGCAG
156	At4g34430	CDS	GGGCTTCCATAAATCTCTTACAG	GGAGACCTCTTCTGCTTTTTTG
157	At4g38900	CDS	GGGAACCGGGTCTGCTTTTAG	GGTAGCCTCGGTCTGAAGAGTCTG
158	At4g32730	5'UTR	CTCAGCGTCTTAATTAATTCAG	CCTTGGAGACTCTCTAGTGGAG
159	At4g37180	CDS	CGAGGATCAAAGACAATCATTCC	GGTTTTGCCCTTCAACATC
160	At4g14410	CDS/5'UTR	CCTTCTCTCGACGATGATTTCG	CCAATACTAAAGACTTCATCTGG
161	At4g28790	CDS	CCATGCTGGATGATGTTATAG	CCTAGGGAAAGGTATGAATGC
163	At4g13100	CDS	CCTCCTCACTAACTCGGAGAC	CCTCTCCTCCCCCTCGCAGC
165	At4g16420	CDS	GCAGAACATGAAAGAAGAGTAC	GCTCAGCATCATTGTCATATTC
166	At4g25990	CDS	GTTCCGAGAAAGTGGTATGAGAG	CGTAGACCACTTAAATTCCTTG
167	At4g18020	CDS	CCGATCATTGCATCACTACTAC	CCTTATGAACAACATGCTGC
168	At5g18240	CDS	CCCATAAGTGATGCCCTCAAATG	CCCAGCTGCACCTAGTTCTG
169	At5g24520	CDS/3'UTR	GGTCTTCTTCGAGCCTGATTG	GGAGCGCAAACCAAACCTAC
170	At5g28770	CDS	GGTGTTCGGTCTCCTCTCC	GGAAGAAGCAAGAGAGGCTTG
171	At5g18620	CDS	CCATCAAACGACCTTCGGG	CCTTGTCTCTAAGGAGCTTC
172	At5g60580	CDS	GGTACAGGTGCCATCGCTATATC	GGGCGAAGAGAACGACCAACGC

174	At5g13220	CDS/3'UTR	CCCATCGCAAGGAGAAAGTC	CCAAATCCAAAAACGAACATGG
176	At5g06960	5'UTR/CDS	CCACGTCTTTGCAGTTGTAG	CCATCTGTTGAGACTGATGTTC
177	At5g59780	CDS	GGACCGTGGACAGAACAGGAGG	GGCGTGAAGCTCAAGGACTAAAC
178	At5g67580	5'UTR	GCGAATCACATTTGATCTATG	GCTTAAGAACTCCAGCTTTAAG
179	At5g48150	5'UTR	CCTTGTCTCCGACAACTTTC	CCTAAGCTTCTCAACAGAGTTAG
181	At5g05550	CDS/3'UTR	GGAGAAGCAGAGAATGGAAG	GGATCCTCCAATTTCAATGAG
182	At5g16820	3'UTR	GGAGAATAATGACTTGGTATTGG	GGTAAATCTTTTATGTTTCTTC
183	At5g22000	3'UTR	CCTGAAACAAACAATGAGCAC	CCTTCTTCTATGCTCCACAC
184	At5g23090	5'UTR	GGAGAGAGAAAATCCCTCCG	GGAAGAGAAGCGTCTTCCTTGG
185	At5g23090	CDS	GGATCCAATGGATATAGTCG	GGAGCAATCGTCCGTTTATCC
186	At5g12840	CDS	GGATTGATGGGAGCATATGG	GGCACGTGCTTTTCTTCGCC
187	At5g02470	5'UTR	CAGTTTGTGTTGTTTGTATAG	CCAATTTCAGAATCATCATC
188	At5g02840	CDS	GCTGTTGATGAGAAACCTCAC	GCTGGTAGAGAGTTGTTGCG
189	At5g43270	5'UTR	CCTCTGGGATCCATAAGTTTTG	CCATCAATTTCCCACTCCATTG
190	At5g56370	5'UTR	GGGCAAAATGTCAAATTAGG	GGAAGCAATGACAGTATGCGC
191	At5g18830	CDS	GGAGCCAGACAGTCTTGTTTCC	GGATCAGTCTCTTTTCCGCC
192	At2g46370	5'UTR	CCTTTTTTCTCTCTCTCTATCC	CCACAGTTTTGTAAGTAAATGGC
193	At1g07350	CDS/3'UTR	CCTGTCTGACCCATGGAC	CTCGAGCAGTTCTCAGCCCC
194	At3g49430	5'UTR	CCTCCGAGTATTGTTGGCTCAGACC	CCTAATGTCACCGGGCAAGTTACC
195	At3g01150	CDS	GGCCAAAGAAGCACTGGAAGG	GGGTTCTGCCAACCTGCTGGTGG
196	At3g01150	CDS	CCATGAGATTGTTAAACAATCAGAGTCC	CCAGCAGCTTTCTCAAATGTGGC
198	At4g36690	CDS	GGATGAGCTTAGAGATGATGAGG	GGCCTGCCACTGGCTGACCATTGG
199	At1g79880	CDS	GGGAGATGGAGAGAGATTGTGG	GGCTCCTTTCCGGCCTTCTTGG
200	At1g79880	CDS,/5'UTR	GGCCTCCTCCTTCAACGAAG	GGCCATCTTTGCTCTTGGTG
202	At3g13570	CDS	GGAGGCCATTTGAGCAGTTTGG	GGTTTTCTTCAGCAAATACGACAG
203	At1g11650	CDS/3'UTR	CCAGAGCTCTGCTGCAGGGGTAAC	CGCAAACAACAAGCAGAGTGAC
204	At3g53500	CDS/5'UTR	GGAAACTCGCCTCTATGTTGG	GCGTCATCAGCATCACGAGG
205	At3g61860	CDS	GGCAATTTGAGTATGAAACTCGCCAGTCGG	GGAAAATTGTCGAGTTTGCGAATAG
206	At2g21660	CDS	GGCGTCCGGTGATGTTGAGTATCGG	GGCTTTCTCATCCTTGAAGG
207	At2g47580	CDS	GGCGTTAAGACCTTAAGCACAAGG	GGTTTTGGACAAAGAGAATATTATTTGG
208	At1g09230	CDS	CCGTCGGTTGACTGTATATCAAAAAC C	CTGCATTAGCCTCACACCAAGAC
209	At2g16940	CDS	GGAGTCAGGAAAGAGAAAAGCTTGG	GTTCTCTGATCTCTTTCAGG
210	At4g02430	CDS	CACATGCGTAAAGGAGGAGAAG	CCGAACATATTCATGAGAAAAC
212	At4g02430	CDS/3'UTR	CCTGCAAAATCTACATCGAGATCTCC	CTGTCCCTAGCTCGATGGGTCC
213	At5g53180	CDS	GGATGTTGTGGGGAATGTTCTTCTGG	GGTATCCGGCTGTCTTCTCGAAAG
214	At1g31600	CDS	CTCGCTTCGACCTCTCTTTC	CTAACACAGAGACTTTGTTCC
215	At1g31600	5'UTR	GACCATGCTCTGACCTTAAAGG	GGTAAACAAGAAAAGCCCTGG
216	At2g42890	CDS	GTACACTTACAAGATGCTGGTGG	GGAAGGGAACGATGTGCAATGG
217	At1g16610	CDS	CCTAAACCTGTCTCAGCTGCACC	CCTTCTAGGTGATAAGCCTCTCC
218	At2g30260	CDS	CCACCGAATCAATCAATCTACATCC	CAGTGACTTCACTAAAAGTAACCC
219	At4g25500	CDS/5'UTR	GGTGACCTGGAACGACTATTCAGG	GCGGTCAAGTGCTCGGATGG
220	At3g55460	CDS	CCCTTTGAGAGGTTTGGACC	CCTGTTTCATGCTTCTTTGAGCC
222	At5g06160	CDS	GGAGCCACCGTCCAGCAAGG	GTCGCAGTCTGGCCACCAAGCGCTG
223	At2g29210	CDS	GCAAATGAAATAATGAAGAAGAGGG	GTCAGCCCTTCTCCATCCTCTGG
224	At1g15200	CDS	CAAAGAAATTGGAATTGCTTTTCC	CCTCACTGTATCTTCTTCC
225	At3g53570	5'UTR	CCGGCGATCAAATTACGACAGCGAC	CCGATGAGGGAATTAACATTCC
226	At4g24740	CDS	GGTGTGAAGAAATACCGTGAGG	GGAGACTAACAGAATATTTTCTGG
227	At4g24740	CDS, 5'UTR	CCTCATACTCACATGGATCGTCGTCC	CCATTTCTTCTCTCCCTATCCC
228	At4g32660	CDS, 3'UTR	GGGGTGCTGAGAAAATTTTCCAGG	GCTGTGAGACGCTCAGATGG
229	At4g35785	3'UTR	GGTGCATTAATATCTCAACCAG	GGAGCTTTTCAAGCCAAGATAGTGG
232	At1g48960	CDS	CCACGGCGGCGCTCTCCTCCGCC	CCAACGAGAAGCATCGAAGCACC

233	At5g54430	CDS	GGTGGAGATGATGATGGAGATG	GGTGATATATTACTTAGATCCCACG
234	At1g55870	CDS	CTACATCAATGGATTTTCTTGCC	CCAACTTAACTCTTCAGTTTCACC
235	At1g69080	CDS	GGAGAAGACGAATCTTGTG	GGCATGTTGTTTCTTCTGG
236	At1g04950	5'UTR	GGATCTTCGTCGCTCAACG	GGAGCAAGCATAAGAGCAGCTTCAGG
237	At1g07830	5'UTR	CCATTCTCTGTGGCCGTCACCGTCGCC	CCGAATCGTCGAGGCAGCTGCTGC
239	At1g31500	CDS/5'UTR	CTACAACCTCTGCATCATCTTCC	CCTTCAACAGATTCAAATTTGC
241	At1g02090	CDS	CAAAAAACATCGTAAGGAAGC	CCCATCTTCTTCGTAGTCC
242	At1g60850	5'UTR	CTAAATTGCTCAATTCTCTCGGCC	CCGGCAGGGACGTCAGGGAGATC
243	At2g33830	CDS	CCGACCTAAACCGGAGCATGGCC	CCGATCCTGGCGTCGTCGGAGTTCC
244	At5g09230	CDS	CATACAGTTCTGGTTCAAACC	CCTGGTTGTGCTGCAGTGAACC
245	At5g46110	CDS/5'UTR	GGCGATCAACGGAGGAGAGAAAAG	GAAGAATCCAGTGACTAGCCATGG
246	At5g59440	CDS/5'UTR	GAAACGGATCTGCTCGGTTTCAAG	GGTTCTGACACCAGAAGAAAAG
249	At1g72560	3'UTR	GGCTTCAACAAAACGGGAGTCACG	GGATGGTAAAAGCGAACCTTG
251	At1g37150	CDS	GGACAAAGAGTGATTGCTGAAG	CCATCAGGATGAAGCTCATAC
254	At5g50240	CDS	CCGCTACAATTCATCATCATC	CCTCTATCTAAAGCCTCCATAAC
256	At1g54080	CDS	CCAGAGGTTACTGATGCAGC	CCATCAGAGCTATGTTTTGCC
259	At3g17090	CDS	GGGACTTTTGTGGTGTTTACG	GGTATTTCTTGCCACAGCTCTG
260	At3g26740	CDS	CCAACTATTCTTCTCTCTTCC	CCACTGATTACTTCGCATGC
261	At4g10100	5'UTR	CTCATGTGTGTGGTATTACCC	CAGTGTTAGATCAGGCACACC
262	At5g20040	CDS	CCGGAGTCTCTAAGAATGAGC	CCACGCATGAAGCTTCACTC
264	At5g65430	CDS	CCGATCAGGCTTGGTTTGGC	CCGTCTTTTCTTCCATTAGACC
267	At2g42245	CDS	CAGGGTACATATGGGACTCC	CCCTAATTAATCTTCTTACGC
268	At1g03457	CDS	CCGTTGCAAGTTAAGTATGC	CCCTCTTAGAATCTGTAGATCC
270	At1g53650	CDS	CCATGTTCAAGAACTCAATCC	CCTTAGAAGCTCTTCCAGGTAACC
272	At3g23900	3'UTR	GGATTATTCTTAAGTCATAGG	GGAGTGAAGGTGGTTCTTGG
273	At3g07810	CDS	GCTAGAAGTTCATCTCCAGG	GGAAAAGAAGATAATCTAAAAG
274	At5g19030	CDS	GGTTTTCGGATTCAGTGAGTGAAGG	GGCTTCGACAGCCGACTGTG
275	At5g19030	CDS	GGACTCGGCAGTCACTAGGATACGG	GGAAATCGGAATGTGGTCTCCGG
277	At3g23830	5'UTR	CCTCTTTTCTCACTCACTGTTAC	CCATTTGAGCTCTGAGAAACCCC
278	At2g02570	CDS	GGCAGCTTTTGTGAGGATCCTAGG	GGAGTTGCTTCAGCACTAECTCCGG
279	At3g25840	5'UTR/CDS	GGAGAGATTTTAGAAGAAGATGGG	GTTAGACTGCCTGCTGTTTGACGG
280	At5g11200	CDS	GGTACGTGGGAATACACAGTTCTGG	GGAGATGGTTCAATCTGTTGTAG
281	At5g47210	CDS	CCAAAGTGTGTTGAGTCCATGCAAC	CCACCTCTCCCGTTGTACCTC
282	At5g63120	CDS/3'UTR	GGTGACAAGACCCAATCGG	GGTTCGACCAATCCTATGG
283	At3g01540	CDS	CCAAGTACCACCACCTAATGTCC	CCTACCTGCATAGCAATGGGCC
284	At4g33060	CDS	GGAGAAGAAGCTGAAGAAGAGG	GAAAAGCTTTTATCTTTTTGAG
285	At3g19840	CDS	CCATATTCTGGTTCTCATCC	CCAGGCATCTAACCGATTTCC
286	At1g67210	CDS	GAACTCGATCCTCCTCCATGG	GAGGGCTAGCTTTTTCCAAG
288	At3g12570	5'UTR	CCATGTGTTGTAAGTGTGCC	CCATGGATAGCAGTGTGAC
289	At3g12570	5'UTR	GGGATCATTTTGTAGGAGCG	GGTGATAGTTCTCCATAGACAGG
291	At2g46270	CDS	CTCATTTTCATTCTGTTTCTCC	CCTTAATCTTGACCTTCTAGC
292	At4g36730	CDS	GATGAAAGTGTACAGCGGG	GGCTTCATGGGACCGAACCTTGG
293	At2g20180	CDS/5'UTR	CCGATGATGATTATGTCAACAACC	CCATAGAAGGAAGAAGCTTC
295	At2g02390	CDS	GGCTTGATTATGAGTATATACCAG	GGTAACAAAGGTGGCTCAGGG
296	At1g67980	CDS	CACAAGATTAATTTTATCCATTCC	CCTTCACCAATTTTAGAAGCC
297	At3g44300	CDS	GGTGGATGTTTCGATTGTCCGG	GGTCAAGTGTAACATCTGG
298	At5g09880	CDS	GGGATGTGCGATTGATCATGG	GGGCTTAACCATCACAGG
299	At5g11330	CDS	CCTCAGGCTCGGCAGATCATC	CCGAATCGAAGACAAACCCC
300	At5g59300	CDS	CCGAAAATTCACAAAATCAGAACC	CAGGAGGTCCGATAATGGTAAC
301	At5g09790	CDS	CCCATTGTTGTCGTGTCCCC	CCGTTAATGCAGAAGCAAGTGTCC
302	At5g09790	CDS	CATCCTCCTGGTGTATCATCC	CCTCAACGTTTGTGGAGATTC
303	At3g46460	CDS	GGACTCAGTGAGAGAAGAAG	GAGGAACGCAACATTCTCCGG

304	At5g18800	5'UTR	CCGATCATCAATGGCCGCCGTGCC	CCACTGAGAATGATTTCCAAC
305	At1g01060	5'UTR	CCCGGTGAGATGATAAGTC	CCATCTTTGATCTCCCCAAAC
306	At2g46830	CDS/5'UTR	GGACTGAGGAAGAACATAATAG	GGTTTACGCTTAGGCCGTGG
307	At3g11540	CDS	GAGAAGGCTGCACCTTGAGAGG	GAATCTGGATCTATCTTAAGG
308	At5g10140	CDS/3'UTR	GGAGGAACACCTTGAGACTG	GAGTCACCGGAAGATTGTCCG
309	At5g65060	CDS	CAAGGAGTTACTAGAAAATAGTCC	CCCGTGACATTCTCTGTACC
310	At5g65070	CDS	CCGTCGCTCTTATCATCATCTC	CCGGTGACATTGCTCTTGCATCC
311	At5g65080	CDS	GTCAACTCTCAATTCTCTGTGG	GTGGCCAGAGCTATTTCCGG
312	At5g13790	CDS	GGGTTACTTAAGAAAGCTCG	GTAGGATGGAACATAGTGGG
313	At5g37055	CDS	GGAAGAGATGTGAACCGTCCG	GCTGCTTCAAGTAAGTCGG
314	At2g43410	CDS	GGGCTGGCTCTTACGATAACAG	GATGGCCTCCTCCAGTTTGG
315	At4g31120	CDS	CTCAACGAAAGTCAACAACC	CCAACCCAGTACGAACGGCC
316	At2g28550	CDS	CGAAATTGGTAACTCCGGTTCC	CCAAGAGTAAAGTTGATATC
317	At2g28550	CDS	CTTGGGAATCTCTTATCGACC	CCCCAGTTACTCATCATCCC
318	At5g48560	CDS	GGACGCTCTTGTGTCAAAGG	GTTGAGATTCAATTGTGGGG
319	At5g65640	CDS	CCTCTGGTCAGAAACTCACC	CATTGTTCAATCTCCAAGCC
320	At5g24590	CDS	CCCTGAGGTTACAACCACC	CCACATCCTTTCGTCATAGTTTCC
321	At4g27410	CDS	CGATCTCTACAAGTTCGATCC	CTTGTAATTCGACACAACACCC
322	At2g33480	CDS	CCGATGTTTGTAAATCCGATCC	CTGTCTCTTCTCATTCTCC
323	At1g76580	CDS	GGGTAACACGCGTCAATGG	GATTCAACTCTTTCGAAATCGTGG
324	At5g43270	5'UTR	GGGATCCATAAGTTTTGAG	GCTTGAAGAATACAGAGAGG
325	At2g47890	CDS	CCACGGATGTTCTCTCTGACC	CGAACCTTGCCTGATTCATACC
326	At1g69250	CDS	GGTCTATCAAAGAAAACGGG	GGTCTGCAAGCATGAAGGGCG
327	At5g59950	CDS	CTGCTCCATACCAATCAGCC	CCACTTCTATCAAAATGAAC
328	At5g52310	CDS	GGTCAATGAGAAGGATCAAG	GATTGTGGTGACTCTTCAACGG
329	At4g17615	CDS	GCAGTTCGGTTGTTGATGATGG	GGGGTGGAAAACATTGAGTG
330	At3g10300	CDS	CTCCTTATGTATCTATTACC	CCGCTTCTGTCTTATCAAACC
331	At3g10300	CDS/5'UTR	CTTCACTTTTCTTTAGTCTTC	GGTAAAACAGTGAGCATGAAG
332	At3g16800	5'UTR	GAATATTCATATCAGAGAAG	GGCTATCATATGTCCTCCATGG
333	At3g16800	CDS	CCCGGTTCCAGCTCTCGGTAGAC	CCTCTTACTATCTCCACTGCC
334	At1g01140	CDS	CCATCATTGCATGTGGTAGAGC	CAGTATTCCAGACTACATCC
335	At5g66210	CDS/3'UTR	CAAAGACGGGTACATAACGCC	CCTCTTGATCTAGTGCACC
336	At5g28080	5'UTR/CDS	GTTGAAGTTGATCCTACTGG	GAGCCTCTCTAGCTCTTGAGG
337	At5g28080	CDS	GTCAAGATTGGAGATCTTGG	GAGTCTAAGGGACTGTGG
338	At5g57630	CDS	CAGATGCTAGAAAACTTTTCC	CCATACATCTACTGCTGTCC
339	At4g13020	CDS	GTAGATACTTGTCTTCAAGG	GGATGATTTAGCTTACGAAG
340	At5g63990	CDS	CGAGTTTCTTCGAGTCATACC	CTGCGTCGTAAACGACGATTCC
341	At2g15970	CDS	CACTATCGCTGCTAAGAACC	CTACGAAAGCAATCCATTACC
342	At3g01090	5'UTR/CDS	CCGAATTTTCTCTCCGCC	CCAATACCAAGAGTTCTCCC
343	At3g29160	5'UTR	CCTGACTCAGCTCTGCGTCACC	CCCAATTCCAAGAGTTTTACC
344	At3g29160	CDS	CCTGTTATTGGATAACCGGTTCC	CCAAGAGCCCATTTTCGATCAAC
345	At1g49730	CDS	CTAAGCTGCATCACCGTAACC	CTTGATTTAATATCTCTATGAC
346	At4g23260	CDS	GGGAAGTGTATCCCTTCTCTGG	GGAAAAGTTGCTTGTGCGCCG
347	At4g34460	CDS	CCAACCTCCAGGTCTATCAGCC	CCTGTACACAAGGCACTTCC
348	At4g34460	CDS	CGCCTCCAGCTCCTCGATACC	CTTGAGATGCACTGACAATCC
349	At5g40280	CDS	CTTTAGGAGGTGACAAAAGCCC	CCCTGGGTGAGTTCATCATCC
350	At1g77740	CDS	CAGCGGTGAGGCTAAGAAACC	CAGGATCCACCGTGAATAGCTCCC
351	At2g18960	CDS	CACTAGCAGAGCTATCTTCC	CGCTGAGAAGTCAAATTCCC
352	At5g57110	5'UTR	CTTACCGGAATTTTCTCTCC	CCCAGACTCCACATCGCCTCC
353	At1g27770	CDS	CGAAGCACTTCGAACTTTTGGC	CTCACCAAAGTATGCTTATCC
354	At5g23450	5'UTR	CTTTTGCTGATACACTTCTCTCC	CGTCTAAGCGACTGTTGTGCC
355	At3g16785	CDS	CTCTCTTGTGGTCCGAACACC	CCCAAATCGATCGTTGTGTGCC

356	At3g56860	3'UTR	CACTAAATGTATCATGTATCC	CGTTGAGAAGCTTGCACCAC
357	At1g54100	5'UTR	CATTTCCTCGATACGATCAACC	CCATATTTTAGCTGCTTCCTC
358	At1g09000	CDS	CCGTTACAGATAAATAACACC	CCATTACCAGGACTTTCGTC
359	At2g38170	CDS	GGAAATGCAGCTGAACATGCTGG	GGACCAGTCCCTTCATGTAG
360	At3g06510	CDS	CTCTACCAATGGGTGTATTCC	CCCGATTCACTGTATTTCATC
361	At4g13850	CDS	CCTTAAGGGATGCTTTTGCTC	CCTCCTCTGTTTAGAAACCACC
362	At4g26070	CDS	CCTTCAAACCTTGCTAATCAATC	CCTGCGTCGGTGAAGTAAGCC
363	At5g24270	CDS	GAGTTTGGTGAATTTGTCCGG	GGCAAAGTCATGTTCTTGATG
364	At5g67030	CDS	CCATCGATGCTTGACTGGGTCC	CCGAAACGCAACAATCGTCGCC
365	At4g34000	CDS	GGTGCAGTTCTGGAGAAAGTG	GCATCCCATTCCCATGGCTGG
366	At5g25610	CDS	CCTCTGATCTGTCTTCTGGTTC	CCAACGTTACGGCGGTTCC
367	At1g71860	CDS / 3'UTR	CCACCTAGTCTCGGCCCAATC	CCCTCTAAGCAGACGAACC
368	At1g78290	5'UTR	CTTCCCAAGAAGATCAAATCC	CCTATGGTTCATGATTTCTC
369	At4g31720	5'UTR	CGTCTCAGCTCAATTCTCTTCC	CTCTTAGCCAAGTAGTGCTCC
370	At5g35410	CDS	CAGCAGAGTTTTCTGTCCACC	CCAAGGATCTTCTTGATTCC
371	At5g37370	CDS	GGACGGATGACGACAATGGG	GGGCAGTGTCTCTGAGCCACGGG
372	At1g76460	CDS	GGTCGATCCAAAGGATATGG	GGAAGTGGTTGCTGATACGG
373	At3g13224	CDS	GTTGGTGGTATACCCTCAACGG	GGGTGACTACCCTAAGAAGG
374	At4g36960	5'UTR	GTTTAGGGCATCCTTGTTGGG	GTAATCCTTAAGCCCATCGG
375	At3g20270	5'UTR	CTCAGGGATTACTTACTACC	CTCCGCGGAATAAATTAGCCC
376	At1g64625	CDS	GGGAGAAGTAGCTTCATCCGG	GAGTAGATCCTAGCTGAACAACG
377	At3g51530	CDS	CCGTCGTCGATGTCTCTCTC	CCCATACTCCAACATAAACACC
378	At3g62190	CDS	CCTGATGATCAGAAGCTTGTGGC	CCGAGGAACCCCAGTCTTGAC
379	At5g04275	pri- miRNA	GTTTGTGTGTGTGAGACTTTGG	AGATGAGCTTTCTTCCATGG
380	At5g08185	pri -miRNA	GTCCATTTGGTTTCATAAGG	GCTTTCCAGAAAAGTAATCGG
381	At5g53450	5'UTR/CDS	GGGAAAGAATCAAACTTTTG	GGTTTCGTTTATAACCAATG
382	At1g44910	CDS	GCAAATTC AAGATAGACTGG	GGCTGTAAGGATGCCTGCAG
383	At2g43640	5'UTR	CCTTTTTACCGAAGAGACTCC	CCCTTCTCTTTGCTTTTCTC
384	At4g02200	CDS	GTGTCACCATATCGATGAGG	GACATCTCTATGCTGAGTGG
385	At2g43810	5'UTR	GGCTGCTTCATCGAGCGGAAG	GTTGAGCTTGACAACAACCTGG
386	At4g01250	CDS	CCGGTAGCGTCACTAGCAAACCC	CTTGTTTACGGGCTAAACAACC
393	At2g26150	CDS	GGAAATGGAGGAAGAAACGG	GCCTCAACCTAACTACCTCAG
411	At3g26744	5'UTR	GGAGAAATAGTGACGGTGAG	GATCTTGTGGATGTGGTTGG
412	At4g29810	CDS	GGATTGAGCAATAATCTCAAG	GCTCAGCTGATCATCAGCTGG
413	At2g33120	CDS	CCTTCTTCTAACAACAAGTTTACC	CCATATCTCTTGTGAAATCC

Supplemental Table 2

Gene transcripts significantly up-regulated in either *upf1-5*, *upf3-1* mutants and/or CHX treatment

Peaks that change significantly in both *upf* mutants and CHX treatment

Primer pair	Band Size (bp)	Gene Identifier	Gene name/function	Wt mean	SE	<i>upf1-5</i> mean	SE	<i>p</i> <=0.1	<i>upf3-1</i> mean	SE	<i>p</i> <=0.1	CHX mean	SE	<i>p</i> <=0.1	Exon No.	Transcript features	AS event	PTC to pA	Auth stop to pA
21	341	A12g37340	RSZ233, RSZ33 (ARGININE/SERINE-RICH ZINC KNUCKLE-CONTAINING PROTEIN 33) - pre-mRNA splicing factor/ SR protein/ nucleic acid binding / nucleotide binding / zinc ion binding	0.04	0.00	0.07	0.01	0.064	0.13	0.04	0.000	0.20	0.03	0.000	7	PTC+; ds splice junctions	Alt 3' in IVS2 adds 218 nt	1070	225
30	277	A13g53270	Unknown protein - similar to unnamed protein product [Vitis vinifera] (GB:CAO65717.1); contains domain PTHR15131 (PTHR15131)	0.10	0.01	0.14	0.01	0.012	0.16	0.01	0.001	0.15	0.01	0.004	9	No reason for NMD from AS event - uORFs	Alt 3' ss and alt 5' ss in IVS1 (5'UTR) - uORFs of 43 aas but in non-NMD isoforms also		
44	288	A15g13730	SlG4 (SIGMA FACTOR 4); DNA binding/ DNA-directed RNA polymerase/ transcription factor/ regulation of plastid-encoded RNA polymerase PEP	0.22	0.02	0.53	0.01	0.000	0.56	0.06	0.000	0.46	0.02	0.000	4	PTC+; ds splice junctions	Alt 3' ss in IVS2 adds 14 nt to transcript	492	22
50	190	A15g43910	pfkB-type carbohydrate kinase family protein	0.35	0.02	0.48	0.04	0.005	0.56	0.02	0.000	0.44	0.03	0.033	12	PTC+; ds splice junctions	Alt 3' ss in exon 10 removes 31 nt	351	130
72	190	A12g04790	Unknown protein - similar to unnamed protein product [Vitis vinifera] (GB:CAO23994.1)	0.29	0.02	0.46	0.04	0.000	0.53	0.04	0.000	0.38	0.01	0.007	4	PTC+; ds splice junctions	Alt 5' ss in IVS2 adds 23 nt	348	133
110	380	A11g72050	TFIIIA (TRANSCRIPTION FACTOR IIIA) - zinc finger (C2H2 type) family protein/ required for transcription of 5S rRNA genes	0.61	0.06	0.72	0.06	0.064	0.86	0.05	0.000	0.91	0.01	0.000	6 or 7	PTC+; ds splice junctions	Alt 3' ss and Alt 5' ss leave 175 nt of IVS2	1329	242
121	228	A12g18300	Basic helix-loop-helix (bHLH) family protein; transcription factor involved in response to cytokinin stimulus	0.80	0.07	0.88	0.02	0.076	0.89	0.01	0.050	0.89	0.01	0.060	6	No reason for NMD from AS event	Alt 3' ss in IVS 4 adds 6 nt in frame		
125	251	A12g46790	APRR9 (PSEUDO-RESPONSE REGULATOR 9) - transcription regulator/clock function - essential to temperature-sensitive circadian system	0.22	0.02	0.32	0.01	0.007	0.47	0.02	0.000	0.37	0.01	0.000	7	PTC+; ds splice junctions	Alt 5' ss in IVS2 adds 8 nt of IVS2	1218	184
143	329	A13g12250	TGA6 (TGA1-related gene 6); DNA binding/basic leucine zipper transcription factor/ activation of SA-responsive genes factor	0.03	0.01	0.08	0.01	0.003	0.11	0.02	0.000	0.07	0.01	0.016	9	PTC+; ds splice junctions	Alt 5' ss in IVS2 adds 109 nt of IVS2	1421	364
193	294	A11g07350	Pre-mRNA splicing factor - Transformer serine/arginine-rich ribonucleoprotein, putative	0.27	0.02	0.34	0.02	0.067	0.48	0.07	0.000	0.56	0.02	0.000	7 or 8	PTC+; ds splice junctions	Alt 3' ss and alt 5' ss adds exon of 9nt from IVS4	1072	307
194	366	A13g49430	SR34A (SER/ARG-RICH PROTEIN 34A) - pre-mRNA splicing factor - SR protein	0.07	0.01	0.21	0.03	0.002	0.35	0.08	0.000	0.30	0.03	0.000	30	uORFs of 10, 30 and 61 aas - 61 aa uORF overlaps AUG of main ORF/stops at AUG	Alt 3' ss and 5' ss includes 224 nt of IVS1		
206	349	A12g21660	ATGRP7 (GLYCINE-RICH RNA-BINDING PROTEIN 7), CCR2 (COLD-CIRCADIAN RHYTHM AND RNA BINDING 2) - RNA binding/ double-stranded DNA binding/ single-stranded DNA binding/ regulates circadian oscillations of GRP7/GRP8 transcript/ cold-induced/ response to salt and dehydration stress conditions/ mediates innate immune response	0.02	0.00	0.07	0.03	0.031	0.16	0.08	0.000	0.13	0.00	0.004	2	PTC+; no ds splice junctions; long 3'UTR	Alt 5' ss in IVS1 (only intron) adds 166 nt	778	228
219	382	A14g25500	RS40 - pre-mRNA splicing factor/ SR protein/ RNA binding (previously ATRSP35 [Arabidopsis thaliana arginine/serine-rich splicing factor 35])	0.14	0.05	0.33	0.07	0.002	0.54	0.07	0.000	0.34	0.03	0.001	6	PTC+; ds splice junctions	Alt 3' and 5' ss in IVS2 includes new exon of 257 nt	1390	197
220	590	A13g55460	SCL30 (SC35-LIKE SPLICING FACTOR 30) - pre-mRNA splicing factor/ SR protein/ RNA binding	0.01	0.00	0.05	0.01	0.057	0.11	0.04	0.000	0.08	0.01	0.003	8	PTC+; ds splice junctions	Alt 3' ss and alt 5' ss leaves 449nt of IVS3	1184	261
224	236	A11g15200	Pinin - exon junction complex protein; protein-protein interaction regulator family protein	0.11	0.02	0.19	0.03	0.051	0.27	0.04	0.002	0.39	0.04	0.000	10	PTC+; ds splice junctions	Alt 3' ss and alt 5' ss leaves 104 nt of IVS8	686	141
237	273	A11g07830	RPL29 - ribosomal protein L29 family protein	0.02	0.00	0.05	0.01	0.016	0.09	0.01	0.000	0.07	0.02	0.001	4	uORF of 20 aas - predicted	Alt 5' ss in IVS1		
241	119	A11g02090	FUSS (FUSCA 5), CSN7 (COP9 SIGNALOSOME SUBUNIT 7), COP15 (CONSTITUTIVE PHOTOMORPHOGENIC 15) - MAP kinase kinase/ phosphoprotein	0.15	0.08	0.27	0.01	0.060	0.29	0.02	0.006	0.30	0.01	0.001	9	PTC+; ds splice junctions	Alt 3' ss in exon 8 removes 17 nt	290	202
244	131	A15g09230	SR12 - member of SIR2 (sirtuin) family histone deacetylases (HDAC) - chromatin silencing/ DNA binding	0.26	0.02	0.33	0.01	0.060	0.49	0.06	0.000	0.48	0.02	0.000	11	PTC+; ds splice junctions	Alt 5' ss in IVS5 adds 11 nt from IVS	913	176
245	138	A15g46110	APE2 - ACCLIMATION OF PHOTOSYNTHESIS TO ENVIRONMENT 2 - antiporter/ triose-phosphate transmembrane transporter/ involved in acclimation responses	0.01	0.01	0.05	0.00	0.013	0.12	0.03	0.000	0.11	0.01	0.000	12	PTC+; ds splice junctions	Alt 5' ss in IVS1 adds 7nt	1402	444
282	471	A15g63120	RH30 - ethylene-responsive putative DEAD box RNA helicase	0.05	0.01	0.10	0.02	0.037	0.17	0.04	0.000	0.21	0.02	0.000	10	PTC+; ds splice junctions	Alt 5' ss adds 294 nt from IVS8	836	215
285	207	A13g19840	PRP40C - Pre-mRNA-processing protein 40C/ binds CTD of RNA polymerase II/ scaffold for RNA processing machinery/ FF domain-containing protein / WW domain-containing protein	0.66	0.01	0.72	0.03	0.016	0.81	0.03	0.000	0.87	0.01	0.000	13	PTC+; ds splice junctions	Alt 5' ss in IVS2 adds 36 nt - No 3'UTR in TAIR	1800	
298	219	A15g09880	RNA recognition motif (RRM)-containing protein	0.14	0.00	0.19	0.01	0.081	0.23	0.03	0.002	0.22	0.02	0.007	13	PTC+; ds splice junctions	Alt 3' ss and alt 5' ss in IVS4 leaves 76nt of IVS4 in transcript	1171	204
301	275	A15g09790	ATXR5/SDG15 (SETDOMAIN GROUP 15) - contains SET-domain and PCNA-binding domain/ DNA binding/ possible role in cell-cycle regulation or progression.	0.03	0.00	0.07	0.01	0.001	0.09	0.00	0.000	0.06	0.01	0.002	5	PTC+; ds splice junctions	Predicted - Alt 5' ss in exon 1 removes 7 nt and alt 3' ss in exon 2 removes 3nt	930	233
309	223	A15g65060	MAF3 - MADS AFFECTING FLOWERING 3 - MADS domain protein/flowering regulator/ transcription factor/ closely related to FLC	0.19	0.01	0.35	0.01	0.000	0.42	0.00	0.000	0.38	0.02	0.000	7	PTC+; ds splice junctions	Alt 3' ss in exon 4 removes 38 nt	446	250
310	368	A15g65070	MAF4 - MADS AFFECTING FLOWERING 4 - MADS domain protein/flowering regulator/ transcription factor/ closely related to FLC	0.02	0.01	0.06	0.01	0.007	0.07	0.01	0.003	0.10	0.02	0.000	7 or 8	PTC+; ds splice junctions	Exon 2 and 3 skip	518	165
327	421	A15g59950	Aly/REF - RNA and export factor-binding protein, putative	0.16	0.04	0.30	0.04	0.021	0.47	0.05	0.000	0.41	0.08	0.001	5	PTC+; ds splice junctions	IVS1 retained (196nt)	1063	354
344	195	A13g29160	AKIN11 (ARABIDOPSIS SNF1 KINASE HOMOLOG 11) - SNF1-related protein kinase - interacts with SCF subunit SKP1/ASK1 and 20S proteasome subunit PAD1	0.08	0.01	0.12	0.01	0.057	0.17	0.02	0.000	0.15	0.02	0.002	11	PTC+; ds splice junctions	Alt 3' ss in exon 9 removes 5 nt	722	268
345	274	A11g49730	Protein kinase family protein	0.08	0.01	0.16	0.02	0.012	0.21	0.06	0.001	0.20	0.02	0.001	9 or 10	PTC+; ds splice junctions	Alt 3' ss in IVS6 adds 37 nt	773	112
370	120	A15g35410	SOS2 (SALT OVERLY SENSITIVE 2), CIPK24 (CBL-INTERACTING PROTEIN KINASE 24) - kinase/ regulatory component controlling plant potassium nutrition	0.42	0.01	0.49	0.01	0.020	0.59	0.03	0.000	0.63	0.01	0.000	14	PTC+; ds splice junctions	Alt 3' ss in IVS8 adds 5 nt	775	233
375	195	A13g20270	Lipid-binding serum glycoprotein family protein	0.54	0.01	0.62	0.03	0.004	0.64	0.01	0.000	0.59	0.01	0.053	11	uORF of 22 aas overlaps start of main ORF	Fully spliced		80
378	218	A13g62190	DNAJ heat shock N-terminal domain-containing protein	0.09	0.00	0.13	0.01	0.095	0.16	0.01	0.004	0.17	0.01	0.002	6	PTC+; ds splice junctions	IVS4 (75 nt) retained	1091	718
384	149	A14g02200	Drought-induced-19-like 1 - drought-responsive family protein	0.06	0.01	0.13	0.02	0.032	0.21	0.03	0.000	0.22	0.03	0.000	5 or 6	PTC+; ds splice junctions	Alt 5' ss in IVS2 adds 32 nt	496	114
393	565	A12g26150	ATHSF42 (Arabidopsis thaliana HEAT SHOCK TRANSCRIPTION FACTOR A2) - DNA binding/ involved in response to misfolded protein accumulation in the cytosol	0.66	0.05	0.79	0.02	0.008	0.84	0.01	0.001	0.85	0.01	0.001	2 or 3	PTC+; ds splice junctions	Alt 3' and alt 5' splice sites add 31 nt of IVS1 as a mini-exon.	1217	179

Peaks that change significantly in both *upf* mutants

Primer pair	Band Size (bp)	Gene Identifier	Gene name/function	Wt mean	SE	<i>upf1-5</i> mean	SE	<i>p</i> <=0.1	<i>upf3-1</i> mean	SE	<i>p</i> <=0.1	CHX mean	SE	<i>p</i> <=0.1	Exon No.	Transcript features	AS event	PTC to pA	Auth stop to pA
106	236	A11g49950	TRB1 - TELOMERE REPEAT BINDING FACTOR 1 - telomeric DNA binding protein/ DNA binding / transcription factor	0.08	0.01	0.13	0.00	0.001	0.12	0.01	0.006	0.10	0.01	>0.1	7	No reason for NMD from AS event - uORFs	Alt 5' ss in IVS1 leaves 45 nt of IVS1 in transcript		
109	118	A11g77080	FLM (FLOWERING LOCUS M), MAF1 (MADS AFFECTING FLOWERING 1) - MADS domain protein/flowering regulator/ transcription factor/ closely related to FLC	0.14	0.03	0.22	0.05	0.070	0.29	0.05	0.003	0.19	0.02	>0.1	7	PTC+; ds splice junctions	Alt 3' ss removes 38 nt from exon 4.	468	251
141	202	A13g51880	HMG81 (HIGH MOBILITY GROUP B 1), NFD1 (NUCLEOSOME/CHROMATIN ASSEMBLY FACTOR D1) - transcription factor	0.88	0.06	0.94	0.01	0.012	0.94	0.01	0.011	0.90	0.01	>0.1	8	No reason for NMD from AS event	Alt 5' ss in exon 7 in frame		
200	104	A11g79880	La domain-containing protein	0.08	0.02	0.13	0.02	0.041	0.13	0.02	0.044	0.06	0.01	>0.1	11	PTC+; ds splice junctions	Alt 3' ss in exon 2 removes 17 nt	1401	194
229	153	A14g35785	Transformer serine/arginine-rich ribonucleoprotein; Nucleic acid binding / nucleotide binding	0.07	0.01	0.11	0.01	0.020	0.12	0.01	0.001	0.07	0.01	>0.1	8	PTC+; no ds splice junctions; long 3'UTR	Alt 3' ss and alt 5' ss adds alternative exon of 37 nt	441	248

Supplemental Table 2

Primer pair	Band Size (bp)	Gene Identifier	Gene name/function	WT mean	SE	upf1-5 mean	SE	p <= 0.1	upf3-1 mean	SE	p <= 0.1	CHX mean	SE	p <= 0.1	Transcript features	AS event	PTC to pA	Auth stop to pA	
229	281	A14g35785	Transformer serine/arginine-rich ribonucleoprotein; Nucleic acid binding / nucleotide binding	0.10	0.00	0.13	0.02	0.019	0.14	0.01	0.003	0.12	0.01	>0.1	8	PTC+; no ds splice junctions; long 3'UTR	All 3' ss and alt 5' ss adds alternative exon of 166 nt	441	248
251	106	A11g37150	HCS2 (HOLOCARBOXYLASE SYNTHETASE 2) - catalytic/ involved in protein modification - biotin-[acetyl-CoA:carboxylase] ligase activity; correct development of lateral organs in association with shoot maturation in the reproductive phase (with SPL10 and SPL11)	0.20	0.06	0.33	0.07	0.093	0.43	0.07	0.007	0.24	0.03	>0.1	10	PTC+; ds splice junctions	All 3' ss in exon 9 which removes 28 nt from the transcript.	116	48
324	270	A15g43270		0.07	0.01	0.11	0.01	0.086	0.11	0.02	0.062	0.07	0.01	>0.1	5	uORFs of 9, 12 and 5 aas	All 5' ss in IVS1 (5'UTR intron) leaves 84 nt of IVS in transcript		
372	314	A11g76460	RNA recognition motif (RRM)-containing protein	0.05	0.01	0.08	0.01	0.081	0.12	0.00	0.001	0.08	0.02	>0.1	8	PTC+; ds splice junctions uORFs of 38 and 73 aas - 73 aa uORF overlaps AUG of main ORF	All 3' ss in IVS1 adds 54 nt to transcript	1340	650
374	399	A14g36960	RNA recognition motif (RRM)-containing protein	0.05	0.01	0.15	0.02	0.005	0.32	0.05	0.000	0.09	0.01	>0.1	13		IVS1 (5' UTR) retained		

Peaks that change significantly in upf3-1 and CHX treatment

Primer pair	Band Size (bp)	Gene Identifier	Gene name/function	WT mean	SE	upf1-5 mean	SE	p <= 0.1	upf3-1 mean	SE	p <= 0.1	CHX mean	SE	p <= 0.1	Transcript features	AS event	PTC to pA	Auth stop to pA	
7	361	A11g55310	SCL33, SR33 (SC35-like splicing factor 33) - pre-mRNA splicing factor/ SR protein/ RNA binding	0.15	0.01	0.19	0.01	>0.1	0.32	0.09	0.001	0.47	0.04	0.027	11 or 12	PTC+; ds splice junctions	All 3' ss in IVS3 adds 162 nt to transcript from IVS3	875	203
7	364	A11g55310	SCL33, SR33 (SC35-like splicing factor 33) - pre-mRNA splicing factor/ SR protein/ RNA binding	0.02	0.00	0.03	0.00	>0.1	0.05	0.02	0.001	0.08	0.00	0.058	11 or 12	PTC+; ds splice junctions	All 3' ss and alt 5' ss adds 165nt of IVS3 - also alt 3' ss (NAGNAG) in IVS3 adds 165 nt	974	203
47	203	A15g20250	DIN10 (DARK INDUCIBLE 10) - member of glycosyl hydrolase family 36/ hydrolyzing O-glycosyl compounds	0.24	0.02	0.28	0.01	>0.1	0.33	0.01	0.001	0.33	0.00	0.001	5	uORF of 90 aas - overlaps AUG of main ORF	Fully spliced		
58	237	A15g65050	MAF2 (MADS AFFECTING FLOWERING 2), AGL31 (AGAMOUS LIKE MADS-BOX PROTEIN 31) - transcription factor/ MADS box genes involved in control of flowering time	0.02	0.00	0.04	0.00	0.000	0.05	0.01	0.000	0.06	0.00	0.000	7	PTC+; ds splice junctions	All 3' ss in exon 5 removes 4nt	388	212
82	213	A13g14230	RAP2.2 - member of the ERF (ethylene response factor) subfamily B-2 of ERF/AP2 transcription factor family/ DNA binding	0.14	0.00	0.13	0.01	>0.1	0.18	0.01	0.009	0.17	0.01	0.018	3	SJ 45 nt downstream (-50-55nt); Long 3' UTR	All 5' ss in exon 1 removes 12 nt and alt 3' ss in exon 2 removes 3nt in frame		372
86	396	A14g16845	VRN2 (REDUCED VERNALIZATION RESPONSE 2) - transcription factor/ mediates vernalization/ encodes zinc finger protein similar to Polycomb group (PcG) proteins/ maintains FLC repression cold treatment	0.07	0.00	0.09	0.00	>0.1	0.12	0.02	0.008	0.13	0.01	0.002	15	PTC+; ds splice junctions	All 5' ss in IVS5 adds 22nt of IVS5 to transcript and alt 3' ss in exon 5 removes 4 nt and IVS2 unspliced	1522	153
90	316	A14g39260	ATGRP8 (GLYCINE-RICH RNA-BINDING PROTEIN 8), CCR1 (COLD-CIRCADIAN RHYTHM AND RNA BINDING 1) - regulates circadian oscillations of GRP7/GRP8 transcripts/ cold-induced/ RNA binding	0.03	0.00	0.05	0.01	>0.1	0.12	0.04	0.003	0.14	0.02	0.001	2 or 3	PTC+; ds splice junctions	All 5' ss in IVS1 leaves 158 nt of intron	779	267
118	233	A12g02960	Zinc finger (C3HC4-type RING finger) family protein	0.03	0.00	0.05	0.00	>0.1	0.07	0.01	0.002	0.07	0.01	0.001	6	uORFs of 8 and 26 aas; 26 aa uORF overlaps AUG of main ORF	Predicted alt 3' ss in IVS1 adds 37 nt		
118	237	A12g02960	Zinc finger (C3HC4-type RING finger) family protein	0.04	0.00	0.05	0.00	>0.1	0.07	0.01	0.010	0.07	0.01	0.007	6	uORFs of 8 and 26 aas; 26 uORF overlaps AUG of main ORF	Predicted alt 3' ss in IVS1 adds 41 nt		
131	373	A12g38880	NF-YB1 (NUCLEAR FACTOR Y SUBUNIT B1), HAP3A (HEME ACTIVATOR PROTEIN (YEAST) HOMOLOG 3A) - transcription factor/ confers drought tolerance	0.21	0.02	0.26	0.02	>0.1	0.30	0.03	0.069	0.41	0.06	0.001	7	Intron in 3'UTR	All 5' ss in IVS6 which adds 62 nt to transcript		
195	156	A13g01150	PTB1 - POLYPYRIMIDINE TRACT-BINDING PROTEIN 1 - pre-mRNA splicing - role in pollen germination	0.10	0.03	0.12	0.02	>0.1	0.16	0.02	0.021	0.19	0.02	0.001	9	PTC+; no ds splice junction - possible long 3'UTR	All 5' ss in exon 8 removes 47 nt of exon 8	370	162
196	268	A13g01150	PTB1 - POLYPYRIMIDINE TRACT-BINDING PROTEIN 1 - pre-mRNA splicing - role in pollen germination	0.11	0.02	0.17	0.03	>0.1	0.25	0.07	0.016	0.37	0.05	0.000	9	PTC+; ds splice junctions	All 3' ss and alt 5' ss includes 102 nt from IVS2	1050	162
202	351	A13g13570	SCL30A (SC35-LIKE SPLICING FACTOR 30A) - pre-mRNA splicing factor/ SR protein/ RNA binding	0.18	0.01	0.30	0.01	>0.1	0.48	0.12	0.002	0.52	0.05	0.001	6	PTC+; ds splice junctions	IVS3	958	266
204	376	A13g53500	RS2Z32 - pre-mRNA splicing factor / SR protein/ nucleic acid binding	0.09	0.01	0.11	0.03	>0.1	0.25	0.06	0.000	0.40	0.02	0.000	7	PTC+; ds splice junctions	All 3' ss in IVS2 leaves 218 of IVS2 in transcript	1122	214
205	556	A13g61860	RS31 (ARGININE/SERINE-RICH SPLICING FACTOR 31) - pre-mRNA splicing factor/ SR protein/ RNA binding	0.01	0.00	0.04	0.00	>0.1	0.10	0.04	0.012	0.27	0.07	0.000	6	PTC+; ds splice junctions	All 3' ss adding 513 nt from IVS2 plus alt 5' ss in IVS2 removes another 120 nt at 3' end of IVS2	1215	243
209	227	A12g16940	RNA recognition motif (RRM)-containing protein	0.06	0.01	0.07	0.01	>0.1	0.13	0.04	0.001	0.19	0.01	0.000	14	Unknown			
213	198	A15g53180	PTB2, POLYPYRIMIDINE TRACT-BINDING PROTEIN 2 - pre-mRNA splicing - role in pollen germination	0.08	0.01	0.12	0.02	>0.1	0.19	0.07	0.008	0.31	0.02	0.000	9	PTC+; ds splice junctions	All 5' and 3' adds 58nt from IVS3	1109	213
213	201	A15g53180	PTB2, POLYPYRIMIDINE TRACT-BINDING PROTEIN 2 - pre-mRNA splicing - role in pollen germination	0.06	0.00	0.09	0.01	>0.1	0.14	0.05	0.006	0.22	0.01	0.000	9	PTC+; ds splice junctions	All 5' and 3' adds 61nt from IVS3	1112	213
217	175	A11g16610	SR45 (ARGININE/SERINE-RICH 45), RNPS1 - pre-mRNA splicing factor/ exon junction complex protein/ heterochromatic siRNA pathway/ involved in plant sugar response	0.68	0.02	0.71	0.03	>0.1	0.72	0.01	0.062	0.77	0.02	0.001	12	No reason for NMD from AS event			
218	134	A12g30260	U2B' (U2 SMALL NUCLEAR RIBONUCLEOPROTEIN B') - component of the U2 snRNP complex/ RNA binding	0.05	0.00	0.09	0.01	>0.1	0.19	0.03	0.000	0.17	0.02	0.000	5	PTC+; ds splice junctions	All 5' ss removes 35 nt from exon 2	729	195
220	673	A13g55460	SCL30 (SC35-LIKE SPLICING FACTOR 30) - pre-mRNA splicing factor / SR protein/ RNA binding	0.01	0.00	0.02	0.00	>0.1	0.05	0.03	0.008	0.13	0.02	0.000	8	Unknown			
223	202	A12g29210	Splicing factor PWI domain-containing protein	0.36	0.04	0.36	0.08	>0.1	0.59	0.02	0.009	0.63	0.04	0.004	11	PTC+; ds splice junctions	All 3' ss in IVS5 which adds 50 nt from IVS5	2327	180
226	143	A14g24740	AF2C (ARABIDOPSIS FUS3-COMPLEMENTING GENE 2) - LAMMER kinase/ putative role in phosphorylation of SR protein splicing factors	0.11	0.01	0.17	0.04	>0.1	0.27	0.02	0.002	0.19	0.02	0.075	12	PTC+; ds splice junctions	Exons 5 and 6 skipped - removes 164 nt	810	200
229	302	A14g35785	Transformer serine/arginine-rich ribonucleoprotein; Nucleic acid binding / nucleotide binding	0.02	0.00	0.03	0.00	0.058	0.05	0.01	0.001	0.07	0.00	0.000	8	PTC+; ds splice junctions	All 3' ss and alt 5' ss adds alternative exon of 187 nt	531	248
268	109	A11g03457	RNA-binding protein, putative	0.22	0.05	0.27	0.02	>0.1	0.44	0.12	0.045	0.68	0.08	0.001	9	Unknown			
278	221	A12g02570	SPF30 - Nucleic acid binding	0.00	0.00	0.01	0.00	>0.1	0.03	0.01	0.004	0.06	0.01	0.000	9	Unknown			
279	341	A13g25840	Protein kinase family protein	0.10	0.01	0.09	0.01	>0.1	0.14	0.01	0.061	0.22	0.03	0.000	14	PTC+; ds splice junctions	All 3' and 5' SS adds 56 nt from IVS1	2828	330
280	357	A15g11200	UAP56a - DEAD/DEAH box helicase - exon junction protein	0.07	0.02	0.11	0.02	>0.1	0.18	0.04	0.001	0.25	0.01	0.000	15	PTC+; ds splice junctions	All 3' ss in IVS3 adds 136 nt to transcript.	1521	329
283	480	A13g01540	DRH1 (DEAD BOX RNA HELICASE 1)	0.01	0.00	0.02	0.00	>0.1	0.05	0.02	0.009	0.06	0.01	0.001	9	PTC+; ds splice junctions	All 3' ss in IVS4 leaves 345 nt of IVS4	1772	326
284	290	A14g33060	CYP57 (Cyclophilin 57; Peptidyl-prolyl cis-trans isomerase cyclophilin-type family protein)	0.26	0.05	0.34	0.03	>0.1	0.49	0.06	0.002	0.71	0.04	0.000	10	PTC+; ds splice junctions	All 3' and alt 5' ss in IVS5 which adds 87 nt to transcript.	1112	269
284	295	A14g33060	CYP57 (Cyclophilin 57; Peptidyl-prolyl cis-trans isomerase cyclophilin-type family protein)	0.05	0.01	0.06	0.00	>0.1	0.08	0.01	0.017	0.11	0.01	0.000	10	PTC+; ds splice junctions	All 3' and alt 5' ss in IVS5 which adds 92 nt to transcript.	1066	269
298	299	A15g09880	RNA recognition motif (RRM)-containing protein	0.10	0.01	0.11	0.01	>0.1	0.18	0.06	0.018	0.33	0.01	0.000	13	PTC+; ds splice junctions	Two alt 3' ss and alt 5' ss includes two new exons of 76 and 81 nt in IVS4	1252	204
303	171	A13g46460	UBC13 (UBIQUITIN-CONJUGATING ENZYME 13) - ubiquitin protein ligase	0.08	0.01	0.10	0.01	>0.1	0.14	0.02	0.078	0.20	0.02	0.017	6	PTC+; ds splice junction	All 5' ss in IVS4 which adds 31 nt to transcript	391	240
306	218	A12g46830	CCA1, CIRCADIAN CLOCK ASSOCIATED 1 - transcription factor/ Myb-like transcriptional repressor in regulating circadian rhythms/ binds evening element in TOC1 to repress TOC1	0.79	0.03	0.85	0.04	>0.1	0.87	0.05	0.047	0.89	0.01	0.019	8	No reason for NMD from AS event - other AS/NMD events known	Fully spliced		

Supplemental Table 2

Primer pair	Band Size (bp)	Gene Identifier	Gene name/function	Wt mean	SE	upf1-5 mean	SE	p <=0.1	upf3-1 mean	SE	p <=0.1	CHX mean	SE	p <=0.1	Transcript features	AS event	PTC to pA	Auth stop to pA	
309	219	A15g65060	MAF3 - MADS AFFECTING FLOWERING 3 - MADS domain protein/flowering regulator/ transcription factor/ closely related to FLC	0.04	0.00	0.06	0.00	0.006	0.08	0.00	0.000	0.07	0.01	0.000	7	PTC+; ds splice junctions	Alt 3'ss in exon 4 removes 38 nt from exon 4 plus alt 3'ss in exon 5 removes 4 nt from exon 5	442	250
313	346	A15g37055	SEF (SERRATED LEAVES AND EARLY FLOWERING), SWC6 (homologue of yeast SWC6 protein) - conserved subunit of SWR1/SRCAP complex.	0.02	0.00	0.04	0.00	0.001	0.05	0.00	0.000	0.05	0.00	0.000	4	PTC+; ds splice junctions	Alt 3'ss in exon 2 removes 10 nt	354	83
316	262	A12g28550	TOE1 (TARGET OF EAT1 1), RAP2.7 (RELATED TO AP2.7) - DNA binding/transcription factor	0.93	0.01	0.94	0.01	>0.1	0.96	0.02	0.071	0.97	0.00	0.013	8	No reason for NMD	Fully spliced		217
332	568	A13g16800	PP2C (Protein phosphatase 2C), putative	0.05	0.00	0.07	0.01	0.037	0.10	0.01	0.000	0.10	0.01	0.000	6	PTC+; ds splice junctions	IVS 2 retained	1253	262
343	159	A13g29160	AKIN11 (ARABIDOPSIS SNF1 KINASE HOMOLOG 11) - SNF1-related protein kinase - interacts with SCF subunit SKP1/ASK1 and 20S proteasome subunit PAD1	0.27	0.03	0.27	0.02	>0.1	0.34	0.06	0.088	0.40	0.01	0.005	11	No reason for NMD from AS event - other AS/NMD events known	Fully spliced		
347	221	A14g34460	AGB1 (GTP BINDING PROTEIN BETA 1), ELK4 (ERECTA-LIKE 4) - heterotrimeric G-protein beta subunit involved in organ shape/ nucleotide binding	0.01	0.00	0.02	0.01	>0.1	0.04	0.02	0.041	0.05	0.01	0.004	6	PTC+ - predicted transcript	Predicted alt 5'ss and alt 3'ss in IVS4	388	287
360	343	A13g06510	SFR2 (SENSITIVE TO FREEZING 2) - encodes protein with beta-glucosidase activity/ hydrolase - hydrolyzing O-glycosyl compounds/ freezing response	0.01	0.00	0.02	0.00	0.004	0.04	0.01	0.000	0.04	0.00	0.000	9 or 10	PTC+; ds splice junctions	Alt 3'ss IVS6 adds 28 nt	886	141
360	307	A13g06510	SFR2 (SENSITIVE TO FREEZING 2) - encodes protein with beta-glucosidase activity/ hydrolase - hydrolyzing O-glycosyl compounds/ freezing response	0.02	0.01	0.04	0.03	0.048	0.06	0.02	0.000	0.10	0.07	0.000	9 or 10	PTC+; ds splice junctions	Alt 3'ss in exon 7 removes 7 nt from exon 7	848	141
363	337	A15g24270	SOS3 (SALT OVERLY SENSITIVE 3), CBL4 (CALCINEURIN B-LIKE PROTEIN 4) - encodes a calcium sensor essential for K+ nutrition, K+/Na+ selectivity, and salt tolerance	0.06	0.01	0.08	0.01	>0.1	0.13	0.05	0.008	0.25	0.02	0.000	9	PTC+; ds splice junctions	Alt 5'ss in IVS5 adds 29 nt - No 3'UTR in TAIR		
383	143	A12g43640	SRP14, signal recognition particle 14 kDa family protein	0.07	0.01	0.09	0.01	0.091	0.12	0.03	0.006	0.11	0.01	0.013	5	uORF of 19 aas overlaps with AUG of main ORF	Alt 5'ss in IVS1 and exon 2 skip		

Peaks that change significantly in upf 1-5 only

Primer pair	Band Size (bp)	Gene Identifier	Gene name/function	Wt mean	SE	upf1-5 mean	SE	p <=0.1	upf3-1 mean	SE	p <=0.1	CHX mean	SE	p <=0.1	Transcript features	AS event	PTC to pA	Auth stop to pA	
124	140	A12g37060	NF-YB8, NUCLEAR FACTOR Y, SUBUNIT B8	0.07	0.04	0.21	0.07	0.059	0.15	0.05	>0.1	0.13	0.03	>0.1	7	Unknown			
249	174	A11g72560	PSD, PAUSED - encodes a karyopherin/ ortholog of LOS1/XPO7/ IRNA binding/ mediates nuclear export of tRNAs	0.04	0.00	0.15	0.10	0.028	0.04	0.01	>0.1	0.05	0.00	>0.1	14	Intron in 3' UTR	Alt 5'ss in 3'UTR intron adds 25 nt - distance from authentic stop to splice junction is 68nt		
254	198	A15g50240	PIMT2 (PROTEIN-L-ISOAASPARTATE METHYLTRANSFERASE 2)	0.19	0.04	0.41	0.16	0.081	0.15	0.07	>0.1	0.10	0.02	>0.1	4	Unknown			
311	462	A15g50580	MAF5 (MADS AFFECTING FLOWERING 5)	0.76	0.04	0.82	0.02	0.089	0.80	0.01	>0.1	0.75	0.02	>0.1	7	PTC+; ds splice junctions	Alt 3' SS in exon 5 removes 4 nt	433	254

Peaks that change significantly in upf 3-1 only

Primer pair	Band Size (bp)	Gene Identifier	Gene name/function	Wt mean	SE	upf1-5 mean	SE	p <=0.1	upf3-1 mean	SE	p <=0.1	CHX mean	SE	p <=0.1	Transcript features	AS event	PTC to pA	Auth stop to pA	
7	293	A11g55310	SCL33, SR33 (SC35-like splicing factor 33) - pre-mRNA splicing factor/ SR protein/ RNA binding	0.05	0.00	0.08	0.01	>0.1	0.09	0.01	0.035	0.07	0.01	0.074	6	Unknown			
12	215	A11g72320	APUM23 (ARABIDOPSIS PUMILIO 23) - member of Pumilio RNA-binding protein family/ regulates mRNA stability and translation by sequence-specific binding to 3' UTR of target mRNAs	0.53	0.11	0.66	0.05	>0.1	0.68	0.02	0.097	0.61	0.08	>0.1	6	No reason for NMD from AS event			
19	202	A12g32330	Unknown protein	0.34	0.02	0.39	0.02	>0.1	0.42	0.01	0.019	0.35	0.02	>0.1	15	PTC+; ds splice junctions	Alt 3'ss in exon 10 that removes 71 nt	931	339
43	112	A15g09230	SRT2 - member of SIR2 (sirtuin) family histone deacetylases (HDAC) - chromatin silencing/ DNA binding	0.13	0.00	0.08	0.03	>0.1	0.23	0.03	0.045	0.18	0.01	>0.1	11	No reason for NMD from AS event - other AS/NMD events known	Exon 2 skip - incl. AUG		
108	259	A11g30200	F-box family protein	0.37	0.01	0.39	0.01	>0.1	0.41	0.01	0.034	0.39	0.01	>0.1	2	No reason for NMD from AS event	Transcripts have long 3'UTRs - do not correlate with NMD	473	
128	381	A12g15530	zinc finger (C3HC4-type RING finger) family protein	0.17	0.00	0.19	0.02	>0.1	0.22	0.03	0.046	0.20	0.01	>0.1	7	No reason for NMD from AS event - uORFs	Multiple small uORFs in 5' UTR of fully spliced and AS		
160	341	A14g14410	basic helix-loop-helix (bHLH) family protein	0.06	0.02	0.10	0.02	>0.1	0.36	0.21	0.014	0.08	0.02	>0.1	5	PTC+; ds splice junctions	Alt 3'ss in IVS1 adds 157 nt	1095	164
168	145	A15g18240	MYR1 (MYB-RELATED PROTEIN 1) - transcription factor	0.20	0.01	0.28	0.04	>0.1	0.34	0.08	0.032	0.14	0.02	>0.1	7	Long 3'UTR - predicted AS event	Alt 3'ss removes 23 nt from exon 7	930	332
236	267	A11g04950	TAf6 (TBP-ASSOCIATED FACTOR 6), TAFI59 (TATA BOX ASSOCIATED FACTOR II 59) - transcription initiation factor/ mutant is embryo lethal/ reduced pollen growth	0.03	0.01	0.04	0.00	>0.1	0.08	0.02	0.019	0.05	0.01	>0.1	13	uORF of 17aa - correlates with NMD			
256	259	A11g54080	UBP1A, OLIGOURIDYLATE-BINDING PROTEIN 1A - mRNA 3'-UTR binding	0.22	0.06	0.25	0.05	>0.1	0.48	0.20	0.096	0.20	0.09	>0.1	12	No reason for NMD from AS event	Alt 3'ss in exon 7 removes 12 nt (in frame).		
259	214	A13g17090	PP2C (Protein phosphatase 2C) family protein	0.07	0.00	0.11	0.06	>0.1	0.23	0.03	0.040	0.14	0.05	>0.1	4	PTC+; ds splice junctions	Alt 3'ss in IVS1 adds 17 nt	1103	306
281	170	A15g47210	Nuclear RNA-binding protein, putative	0.08	0.02	0.07	0.03	>0.1	0.17	0.08	0.062	0.04	0.01	>0.1	7	PTC+; no ds splice junction - possible long 3' UTR	Alt 3'ss in exon 7 removes 8 nt	366	200
299	189	A15g11330	Monooxygenase family protein	0.01	0.00	0.02	0.01	0.028	0.04	0.01	0.000	0.02	0.00	0.010	4	PTC+; ds splice junctions	Alt 3'ss removes 170 nt from exon 2	857	127
332	399	A13g16800	Protein phosphatase 2C	0.05	0.01	0.06	0.01	>0.1	0.09	0.01	0.006	0.06	0.01	>0.1	6	Unknown			
372	268	A11g76460	RNA recognition motif (RRM)-containing protein	0.04	0.00	0.05	0.00	0.001	0.07	0.00	0.000	0.04	0.00	0.076	8	PTC+; ds splice junctions	Alt 3'ss in IVS1 adds 9 nt to transcript	1301	650

Peaks that change significantly in CHX treatment only

Primer pair	Band Size (bp)	Gene Identifier	Gene name/function	Wt mean	SE	upf1-5 mean	SE	p <=0.1	upf3-1 mean	SE	p <=0.1	CHX mean	SE	p <=0.1	Transcript features	AS event	PTC to pA	Auth stop to pA	
30	264	A13g53270	Unknown protein - similar to unnamed protein product [Vitis vinifera] (GB:CA065717.1); contains domain PTHR15131 (PTHR15131)	0.25	0.02	0.19	0.01	0.098	0.22	0.05	>0.1	0.37	0.01	0.006	9	No reason for NMD from AS event	Alt 3'ss in IVS1 (5'UTR intron) - no uORFs		
49	346	A15g41150	RAD1, UVH1 (ULTRAVIOLET HYPERSENSITIVE 1) - DNA repair/ confers resistance to UV radiation	0.20	0.03	0.24	0.06	>0.1	0.28	0.03	>0.1	0.34	0.06	0.096	11	PTC+; ds splice junctions	Alt 3'ss in IVS5 adds 53 nt	1020	280
58	241	A15g65050	MAF2 (MADS AFFECTING FLOWERING 2), AGL31 (AGAMOUS LIKE MADS-BOX PROTEIN 31) - transcription factor/ MADS box genes involved in control of flowering time	0.30	0.03	0.26	0.02	>0.1	0.28	0.04	>0.1	0.39	0.01	0.011	7	No reason for NMD - AS events elsewhere in transcript	Fully spliced		
58	351	A15g65050	MAF2 (MADS AFFECTING FLOWERING 2), AGL31 (AGAMOUS LIKE MADS-BOX PROTEIN 31) - transcription factor/ MADS box genes involved in control of flowering time	0.00	0.00	0.01	0.00	>0.1	0.02	0.01	0.015	0.04	0.01	0.000	7	PTC+; ds splice junctions	Predicted - Alt 5'ss in IVS2 adds 109nt	660	212
59	182	A15g66010	RNA binding protein	0.37	0.08	0.27	0.03	>0.1	0.27	0.04	>0.1	0.52	0.06	0.049					
68	190	A11g23970	Unknown protein	0.74	0.01	0.72	0.00	>0.1	0.73	0.00	>0.1	0.79	0.01	0.001					
70	152	A11g54360	TAf6B1/TAf6B2/TAf6B3/TAf6B4 (TBP-ASSOCIATED FACTOR 6B1) - similar to histone fold TBP-associated factor TAf6/ RNA polymerase II transcription factor/ transcription initiation factor	0.89	0.01	0.88	0.00	>0.1	0.88	0.01	>0.1	0.92	0.01	0.053					
111	186	A11g61660	Basic helix-loop-helix (bHLH) family protein	0.06	0.01	0.06	0.01	>0.1	0.08	0.02	>0.1	0.12	0.03	0.030					

Supplemental Table 2

116	338	A11q18660	Zinc finger (C3HC4-type RING finger) family protein	0.06	0.04	0.11	0.00	>0.1	0.11	0.01	>0.1	0.12	0.00	0.071								
118	289	A12q02960	Zinc finger (C3HC4-type RING finger) family protein	0.25	0.01	0.30	0.03	>0.1	0.33	0.02	>0.1	0.51	0.06	0.000	6					uORFs of 8 and 26 aas; 26 uORF overlaps auth AUG of main ORF.	Predicted alt 3'ss in IVS1 adds 92 nt	
122	275	A12q36010	E2F3 (E2F TRANSCRIPTION FACTOR 3) - transcription factor/ cell cycle genes, key components of the cyclin D/retinoblastoma/E2F pathway.	0.55	0.01	0.55	0.01	>0.1	0.54	0.01	>0.1	0.62	0.00	0.000								
128	363	A12q15530	Zinc finger (C3HC4-type RING finger) family protein	0.15	0.01	0.15	0.01	>0.1	0.15	0.01	>0.1	0.22	0.03	0.002								
129	230	A12q40830	RHC1A (RING-H2 finger protein C1A), putative - cell wall/ protein binding / zinc ion binding	0.12	0.01	0.13	0.01	>0.1	0.13	0.01	>0.1	0.24	0.02	0.000								
136	240	A13q07740	ADA2A (HOMOLOG OF YEAST ADA2 2A) - DNA binding/ transcription factor/ transcriptional adaptor ADA2a that interacts with histone acetyltransferase GCN5 homolog and CBF1/ response to cold	0.01	0.00	0.03	0.01	>0.1	0.04	0.02	>0.1	0.05	0.02	0.097								
155	178	A14q27050	F-box family protein	0.33	0.05	0.36	0.07	>0.1	0.33	0.05	>0.1	0.47	0.01	0.090								
155	233	A14q27050	F-box family protein	0.11	0.00	0.11	0.01	>0.1	0.13	0.03	>0.1	0.19	0.01	0.003								
171	221	A15q18620	CHR17 (CHROMATIN REMODELING FACTOR 17) - DNA-dependent ATPase	0.26	0.01	0.26	0.01	>0.1	0.28	0.01	>0.1	0.29	0.00	0.013								
174	224	A15q13220	JAS1 (JASMONATE-ASSOCIATED 1), JAZ10 (JASMONATE-ZIM-DOMAIN PROTEIN 10) - regulation of systemic acquired resistance/ response to jasmonic acid stimulus and wounding	0.34	0.02	0.35	0.00	>0.1	0.36	0.04	>0.1	0.47	0.01	0.000								
182	241	A15q16820	HSF3 (HEAT SHOCK FACTOR 3) - DNA binding / transcription factor/ not induced by heat/ required early in heat stress response	0.66	0.01	0.66	0.00	>0.1	0.66	0.01	>0.1	0.69	0.00	0.003								
193	297	A11q07350	Pre-mRNA splicing factor - Transformer serine/arginine-rich ribonucleoprotein	0.03	0.00	0.03	0.00	>0.1	0.05	0.01	0.001	0.06	0.00	0.000								
198	129	A14q36690	ATUZAF65A - spliceosomal protein/ RNA binding	0.43	0.08	0.44	0.06	>0.1	0.51	0.09	>0.1	0.61	0.07	0.043								
209	209	A12q16940	RNA recognition motif (RRM)-containing protein	0.02	0.00	0.02	0.00	>0.1	0.03	0.01	0.003	0.05	0.00	0.000	14	PTC+: ds splice junctions				Alt 3' and alt 5' ss adds 70 nt from IVS-2	1505	262
212	332	A14q02430	SR34b - pre-mRNA splicing factor/ SR protein	0.00	0.00	0.00	0.00	>0.1	0.01	0.01	>0.1	0.08	0.02	0.000								
212	389	A14q02430	SR34b - pre-mRNA splicing factor/ SR protein	0.04	0.02	0.02	0.01	>0.1	0.05	0.03	>0.1	0.16	0.02	0.001								
225	300	A13q53570	AF1 (ARABIDOPSIS FUS3-COMPLEMENTING GENE 1) - member of LAMMER kinase (CDC2-related) subfamily/ activates STE12-dependent functions in yeast	0.01	0.00	0.01	0.00	>0.1	0.01	0.01	>0.1	0.05	0.01	0.001								
229	414	A14q35785	Transformer serine/arginine-rich ribonucleoprotein; Nucleic acid binding / nucleotide binding	0.36	0.04	0.41	0.05	>0.1	0.43	0.04	>0.1	0.53	0.04	0.004	8	PTC+: ds splice junctions				Alt 3'ss in IVS6 adds 298nt to transcript	642	248
236	295	A11q04950	TAF6 (TBP-ASSOCIATED FACTOR 6), TAFII59 (TATA BOX ASSOCIATED FACTOR II 59) - transcription initiation factor/ mutant is embryo lethal/ reduced pollen growth	0.02	0.02	0.04	0.03	>0.1	0.03	0.01	>0.1	0.12	0.08	0.016								
282	366	A15q63120	RH30 - ethylene-responsive putative DEAD box RNA helicase	0.00	0.00	0.00	0.00	>0.1	0.01	0.00	0.013	0.04	0.01	0.000	10 or 11	PTC+: ds splice junctions				Alt 3'ss and alt 5'ss include an additional exon of 187nt in IVS8	723	215
283	387	A13q01540	DRH1 (DEAD BOX RNA HELICASE 1)	0.00	0.00	0.01	0.00	>0.1	0.02	0.01	0.003	0.03	0.00	0.000		PTC+: ds splice junctions				Alt 3'ss and alt 5'ss include an additional exon of 252 nt of IVS4 in transcript	1772	326
283	349	A13q01540	DRH1 (DEAD BOX RNA HELICASE 1)	0.01	0.00	0.01	0.00	>0.1	0.03	0.02	0.011	0.04	0.00	0.000								
288	189	A13q12570	FYD - in chloroplast envelope	0.57	0.03	0.56	0.02	>0.1	0.63	0.03	>0.1	0.66	0.03	0.026								
289	141	A13q12570	FYD - in chloroplast envelope	0.11	0.00	0.08	0.01	0.052	0.09	0.03	0.078	0.20	0.01	0.001								
289	259	A13q12570	FYD - in chloroplast envelope	0.08	0.01	0.07	0.01	>0.1	0.08	0.01	>0.1	0.11	0.01	0.061								
298	341	A15q09880	RNA recognition motif (RRM)-containing protein	0.00	0.00	0.00	0.00	>0.1	0.01	0.00	>0.1	0.04	0.02	0.002	13	PTC+: ds splice junctions				Three alt 3'ss and alt 5'ss includes three new exons of 76, 40 and 81 nt in IVS4	1263	204
298	464	A15q09880	RNA recognition motif (RRM)-containing protein	0.00	0.00	0.00	0.00	>0.1	0.01	0.00	>0.1	0.03	0.01	0.000	13	PTC+: ds splice junctions				Two alt 3'ss and alt 5'ss includes two new exons of 240 and 81 nt in IVS4	1387	204
310	509	A15q65070	MAF4 - MADS AFFECTING FLOWERING 4 - MADS domain protein/flowering regulator/ transcription factor/ closely related to FLC	0.02	0.01	0.01	0.00	>0.1	0.01	0.01	>0.1	0.05	0.01	0.009								
312	469	A15q13790	AGL15 (AGAMOUS-LIKE 15) - DNA binding/ transcription factor/ member of the MADS domain family of regulatory factors	0.29	0.01	0.30	0.02	>0.1	0.30	0.02	>0.1	0.34	0.01	0.031								
313	355	A15q37055	SEF (SERRATED LEAVES AND EARLY FLOWERING), SWC6 (homologue of yeast SWC6 protein) - conserved subunit of SWR1/SRCAP complex.	0.79	0.01	0.78	0.01	>0.1	0.77	0.01	>0.1	0.84	0.01	0.049								
321	348	A14q27410	RD26 (RESPONSIVE TO DESICCATION 26) - NAC transcription factor/ transcriptional activator in ABA-mediated dehydration response	0.01	0.01	0.01	0.00	>0.1	0.03	0.02	>0.1	0.05	0.03	0.063								
322	399	A12q33480	ANAC041 (NAC DOMAIN CONTAINING PROTEIN 41) - transcription factor	0.60	0.02	0.57	0.02	>0.1	0.61	0.05	>0.1	0.73	0.00	0.004								
324	503	A15q43270	SPL2 (SQUAMOSA PROMOTER BINDING PROTEIN-LIKE 2) - DNA binding / transcription factor/ controls correct development of lateral organs in association with shoot maturation in the reproductive phase (with SPL10 and SPL11)	0.24	0.14	0.10	0.03	>0.1	0.11	0.05	>0.1	0.45	0.10	0.066								
326	147	A11q69250	NTF2 (nuclear transport factor 2) family protein - RNA recognition motif (RRM)-containing protein	0.92	0.01	0.92	0.00	>0.1	0.94	0.00	0.047	0.96	0.00	0.000								
330	118	A13q10300	Calcium-binding EF hand family protein	0.18	0.03	0.21	0.06	>0.1	0.23	0.08	>0.1	0.34	0.04	0.035								
335	327	A15q66210	CPK28 (calcium-dependent protein kinase 28) - calmodulin-dependent protein kinase/ member of Calcium Dependent Protein Kinase family	0.01	0.00	0.01	0.00	>0.1	0.01	0.01	>0.1	0.07	0.02	0.001								
335	295	A15q66210	CPK28 (calcium-dependent protein kinase 28) - calmodulin-dependent protein kinase/ member of Calcium Dependent Protein Kinase family	0.05	0.00	0.05	0.01	>0.1	0.06	0.01	>0.1	0.09	0.01	0.025								
338	253	A15q57630	CKP21 (CBL-INTERACTING PROTEIN KINASE 21), SNRK3.4 (SNF1-RELATED PROTEIN KINASE 3.4) - CBL-interacting protein kinase	0.62	0.03	0.62	0.01	>0.1	0.64	0.04	>0.1	0.81	0.01	0.000								
346	285	A14q23260	CRK18 (CYSTEINE-RICH RLK [RECEPTOR-LIKE PROTEIN KINASE] 18 - cysteine-rich receptor-like protein kinase/ response to ABA	0.09	0.02	0.09	0.01	>0.1	0.17	0.05	0.097	0.34	0.03	0.000								
348	416	A14q34460	AGB1 (GTP BINDING PROTEIN BETA 1), ELK4 (ERECTA-LIKE 4) - heterotrimeric G-protein beta subunit involved in organ shape/ nucleotide binding	0.01	0.00	0.01	0.00	>0.1	0.02	0.01	>0.1	0.05	0.01	0.000								
360	314	A13q06510	SRF2 (SENSITIVE TO FREEZING 2) - encodes protein with beta-glucosidase activity/ hydrolase - hydrolyzing O-glucosyl compounds/ freezing response	0.83	0.02	0.83	0.01	>0.1	0.82	0.01	>0.1	0.90	0.01	0.002								
362	459	A14q26070	MEK1 (MAP KINASE/ ERK KINASE 1), MKK1 (MITOGEN ACTIVATED PROTEIN KINASE KINASE 1) - MAP Kinase Kinase/ stress-activated MAPK pathway/ phosphorylates the MAPK AIMP4 in response to stress/ phosphorylated by MEK1 in response to wounding.	0.48	0.09	0.44	0.13	>0.1	0.63	0.08	>0.1	0.74	0.05	0.066								
362	548	A14q26070	MEK1 (MAP KINASE/ ERK KINASE 1), MKK1 (MITOGEN ACTIVATED PROTEIN KINASE KINASE 1) - MAP Kinase Kinase/ stress-activated MAPK pathway/ phosphorylates the MAPK AIMP4 in response to stress/ phosphorylated by MEK1 in response to wounding.	0.03	0.01	0.03	0.01	>0.1	0.04	0.01	>0.1	0.06	0.01	0.005								
373	267	A13q13224	RNA recognition motif (RRM)-containing protein	0.90	0.02	0.89	0.01	>0.1	0.90	0.01	>0.1	0.96	0.01	0.001								
376	135	A11q64625	Transcription factor	0.26	0.02	0.23	0.03	>0.1	0.27	0.05	>0.1	0.37	0.01	0.009								
380	167	A15q08185	MIR162A, MICRORNA 162A - targets DCL1	0.14	0.02	0.13	0.01	>0.1	0.15	0.02	>0.1	0.18	0.01	0.075								
380	170	A15q08185	MIR162A, MICRORNA 162A - targets DCL1	0.16	0.02	0.16	0.03	>0.1	0.17	0.03	>0.1	0.22	0.03	0.073								
384	110	A14q02200	Drought-induced-19-like 1 - drought-responsive family protein	0.01	0.00	0.01	0.00	>0.1	0.02	0.01	>0.1	0.04	0.01	0.009								
385	256	A12q43810	SmF (Small nuclear ribonucleoprotein F) - spliceosomal snRNP protein	0.07	0.02	0.09	0.02	>0.1	0.10	0.02	>0.1	0.13	0.03	0.027								
385	264	A12q43810	SmF (Small nuclear ribonucleoprotein F) - spliceosomal snRNP protein	0.04	0.01	0.05	0.01	>0.1	0.06	0.01	>0.1	0.08	0.03	0.058								
412	212	A14q29810	MKK2 (MAP KINASE KINASE 2) - MKK2 regulates MPK6 and MPK4 in response to cold and salt stresses.	0.04	0.00	0.04	0.00	>0.1	0.05	0.01	>0.1	0.08	0.01	0.002								

Total 75961 19870

Supplemental Table 2

n 79 82
Mean 962 242

Selected peaks that change significantly in upf mutants and/or cycloheximide treatment where the change is <3%

Primer pair	Band Size (bp)	Gene Identifier	Gene name/function	Wt mean	SE	upf1-5 mean	SE	p <=0.1	upf3-1 mean	SE	p <=0.1	CHX mean	SE	p <=0.1	Transcript features	AS event	PTC to pA	Auth stop to pA
58	174	At5g65050	MAF2 (MADS AFFECTING FLOWERING 2), AGL31 (AGAMOUS LIKE MADS-BOX PROTEIN 31) - transcription factor/ MADS box genes involved in control of flowering time	0.00	0.00	0.00	0.00	>0.1	0.01	0.00	0.003	0.00	0.00	>0.1	7	PTC+; ds splice junctions	Predicted - Exon 3 skip; alt 3'ss in exon 5 removes 4 nt	
58	178	At5g65050	transcription factor/ MADS box genes involved in control of flowering time	0.01	0.00	0.02	0.00	0.000	0.02	0.00	0.000	0.01	0.00	0.058	7	PTC+; ds splice junctions	Exon 3 skip	
58	205	At5g65050	MAF2 (MADS AFFECTING FLOWERING 2), AGL31 (AGAMOUS LIKE MADS-BOX PROTEIN 31) - transcription factor/ MADS box genes involved in control of flowering time	0.01	0.00	0.01	0.00	0.056	0.01	0.00	0.006	0.01	0.00	>0.1	7	PTC+; ds splice junctions	Predicted - alt 3'ss in exon 4 removes 33 nt; alt 3'ss in exon 5 removes 4 nt	
58	351	At5g65050	MAF2 (MADS AFFECTING FLOWERING 2), AGL31 (AGAMOUS LIKE MADS-BOX PROTEIN 31) - transcription factor/ MADS box genes involved in control of flowering time	0.02	0.00	0.02	0.00	>0.1	0.02	0.01	>0.1	0.04	0.00	0.000	7	PTC+; ds splice junctions	Predicted - alt 5'ss in intron 2 adds 109 nt	
58	347	At5g65050	MAF2 (MADS AFFECTING FLOWERING 2), AGL31 (AGAMOUS LIKE MADS-BOX PROTEIN 31) - transcription factor/ MADS box genes involved in control of flowering time	0.00	0.00	0.00	0.00	>0.1	0.00	0.00	>0.1	0.01	0.00	0.000	7	PTC+; ds splice junctions	Predicted - alt 5'ss in intron 2 adds 109 nt; alt 3'ss in exon 5 removes 4 nt	
58	433	At5g65050	MAF2 (MADS AFFECTING FLOWERING 2), AGL31 (AGAMOUS LIKE MADS-BOX PROTEIN 31) - transcription factor/ MADS box genes involved in control of flowering time	0.00	0.00	0.01	0.00	>0.1	0.01	0.00	0.044	0.01	0.00	0.011	7	PTC+; ds splice junctions	Predicted - alt 5'ss in intron 2 adds 109 nt; intron 3 retained; alt 3' ss in exon 5 removes 4 nt	
58	437	At5g65050	MAF2 (MADS AFFECTING FLOWERING 2), AGL31 (AGAMOUS LIKE MADS-BOX PROTEIN 31) - transcription factor/ MADS box genes involved in control of flowering time	0.03	0.01	0.04	0.00	>0.1	0.04	0.01	>0.1	0.06	0.01	0.007	7	PTC+; ds splice junctions	Predicted - alt 5'ss in intron 2 adds 109 nt; intron 3 retained	
118	240	At2g02960	Zinc finger (C3HC4-type RING finger) family protein	0.02	0.00	0.02	0.00	>0.1	0.03	0.00	0.094	0.02	0.00	>0.1	6	uORFs of 8 and 26 aas; 26 uORF overlaps auth AUG.	Predicted alt 3'ss in IVS1 adds 44 nt	
193	279	At1g07350	Pre-mRNA splicing factor - Transformer serine/arginine-rich ribonucleoprotein	0.01	0.00	0.02	0.00	>0.1	0.03	0.00	0.005	0.03	0.00	0.002	7 or 8	PTC+; ds splice junctions	Predicted - alt 3'ss and alt 5'ss in IVS4 adds 81nt of IVS4 to transcript	
193	282	At1g07350	Pre-mRNA splicing factor - Transformer serine/arginine-rich ribonucleoprotein	0.01	0.00	0.01	0.00	0.023	0.01	0.00	0.000	0.01	0.00	0.000	7 or 8	PTC+; ds splice junctions	Predicted - alt 3'ss and alt 5'ss in IVS4 adds 84nt of IVS4 to transcript	
237	123	At1g07830	RPL29 - ribosomal protein L29 family protein	0.01	0.00	0.02	0.01	0.006	0.03	0.00	0.000	0.02	0.00	>0.1	4	uORF of 31 aas overlaps with AUG of main ORF	Alt 3'ss removes 70 nt of exon 2 (including authentic AUG)	
298	270	At5g09880	RNA recognition motif (RRM)-containing protein	0.02	0.00	0.02	0.00	>0.1	0.02	0.01	0.077	0.03	0.00	0.001	13	PTC+; ds splice junctions	Two alternative exons from IVS 4; alt 3'ss in exon 5 removes 29 nt	
299	253	At5g11330	Monooxygenase family protein	0.00	0.00	0.00	0.00	>0.1	0.01	0.00	>0.1	0.01	0.00	0.002	4	PTC+; ds splice junctions	Alt 5'ss and alt 3'ss removes cryptic intron from exon 2 of 106 nt	
299	289	At5g11330	Monooxygenase family protein	0.00	0.00	0.01	0.00	0.088	0.02	0.01	0.000	0.02	0.00	0.000	4	PTC+; ds splice junctions	Alt 5'ss and alt 3'ss removes cryptic intron from exon 2 of 70 nt	

Means and standard errors of ratios of up-regulated transcripts are given for wild-type, upf1-5, upf3-1 plants and plants treated with cycloheximide (CHX)

Green shading - significantly up-regulated with >3% change from wild-type; Blue shading - significantly up-regulated with <3% change from wild-type; pink - significantly down-regulated with >3% change from wild-type.

Abbreviations: PTC+ - PTC-containing transcripts; ds - downstream; uORF - upstream open reading frame; aas - amino acids; ss - splice site; alt - alternative; IVSn - intervening sequence = intron where n is the intron number;

Exon number: where two numbers are given, alternatively spliced transcripts include or exclude an alternative exon giving two possibilities.

Table S3. List of alternatively spliced genes showing splice isoform upregulation upon inhibition of nonsense-mediated decay

Gene ID	Gene Name
At1g02090	FUS5 (FUSCA 5), CSN7 (COP9 SIGNALOSOME SUBUNIT 7), COP15 (CONSTITUTIVE PHOTOMORPHOGENIC 15) - MAP kinase kinase/ phosphoprotein
At1g03457	RNA-binding protein, putative
At1g04950	TAF6 (TBP-ASSOCIATED FACTOR 6), TAFII59 (TATA BOX ASSOCIATED FACTOR II 59) - transcription initiation factor/ mutant is embryo lethal/ reduced pollen growth
At1g07350	Pre-mRNA splicing factor - Transformer serine/arginine-rich ribonucleoprotein, putative
At1g07830	RPL29 - ribosomal protein L29 family protein
At1g15200	Pinin - exon junction complex protein; protein-protein interaction regulator family protein
At1g16610	SR45 (ARGININE/SERINE-RICH 45), RNPS1 - pre-mRNA splicing factor/ exon junction complex protein/ heterochromatic siRNA pathway/ involved in plant sugar response
At1g18660	Zinc finger (C3HC4-type RING finger) family protein
At1g23970	Unknown protein
At1g30200	F-box family protein
At1g37150	HCS2 (HOLOCARBOXYLASE SYNTHETASE 2) - catalytic/ involved in protein modification - biotin-[acetyl-CoA-carboxylase] ligase activity
At1g49730	Protein kinase family protein
At1g49950	TRB1 - TELOMERE REPEAT BINDING FACTOR 1 - telomeric DNA binding protein/ DNA binding / transcription factor
At1g54080	UBP1A, OLIGOURIDYLATE-BINDING PROTEIN 1A - mRNA 3'-UTR binding
At1g54360	TAF6B1/TAF6B2/TAF6B3/TAF6B4 (TBP-ASSOCIATED FACTOR 6B1) - similar to histone fold TBP-associated factor TAF6/ RNA polymerase II transcription factor/ transcription initiation factor
At1g55310	SCL33, SR33 (SC35-like splicing factor 33) - pre-mRNA splicing factor/ SR protein/ RNA binding
At1g61660	Basic helix-loop-helix (bHLH) family protein
At1g64625	Transcription factor
At1g69250	NTF2 (nuclear transport factor 2) family protein - RNA recognition motif (RRM)-containing protein
At1g72050	TFIIIA (TRANSCRIPTION FACTOR IIIA) - zinc finger (C2H2 type) family protein/ required for transcription of 5S rRNA genes
At1g72320	APUM23 (ARABIDOPSIS PUMILIO 23) - member of Pumilio RNA-binding protein family/ regulates mRNA stability and translation by sequence-specific binding to 3' UTR of target mRNAs
At1g72560	PSD, PAUSED - encodes a karyopherin/ ortholog of LOS1/XPOT/ tRNA binding/ mediates nuclear export of tRNAs
At1g76460	RNA recognition motif (RRM)-containing protein
At1g77080	FLM (FLOWERING LOCUS M), MAF1 (MADS AFFECTING FLOWERING 1) - MADS domain protein/flowering regulator/ transcription factor/ closely related to FLC
At1g79880	La domain-containing protein
At2g02570	SPF30 - Nucleic acid binding
At2g02960	Zinc finger (C3HC4-type RING finger) family protein
At2g04790	Unknown protein - similar to unnamed protein product [<i>Vitis vinifera</i>] (GB:CAO23994.1)
At2g15530	zinc finger (C3HC4-type RING finger) family protein
At2g16940	RNA recognition motif (RRM)-containing protein
At2g18300	Basic helix-loop-helix (bHLH) family protein; transcription factor involved in response to cytokinin stimulus

At2g21660	ATGRP7 (GLYCINE-RICH RNA-BINDING PROTEIN 7), CCR2 (COLD-CIRCADIAN RHYTHM AND RNA BINDING 2) - RNA binding/ double-stranded DNA binding/ single-stranded DNA binding/ regulates circadian oscillations of GRP7/GRP8 transcript/ cold-induced/ response to salt and dehydration stress conditions/ mediates innate immune response.
At2g26150	ATHSFA2 (Arabidopsis thaliana HEAT SHOCK TRANSCRIPTION FACTOR A2) - DNA binding/ Involved in response to misfolded protein accumulation in the cytosol
At2g28550	TOE1 (TARGET OF EAT1 1), RAP2.7 (RELATED TO AP2.7) - DNA binding/ transcription factor
At2g29210	Splicing factor PWI domain-containing protein
At2g30260	U2B"(U2 SMALL NUCLEAR RIBONUCLEOPROTEIN B") - component of the U2 snRNP complex/ RNA binding
At2g32330	Unknown protein
At2g33480	ANAC041 (NAC DOMAIN CONTAINING PROTEIN 41) - transcription factor
At2g36010	E2F3 (E2F TRANSCRIPTION FACTOR 3) - transcription factor/ cell cycle genes, key components of the cyclin D/retinoblastoma/E2F pathway.
At2g37060	NF-YB8, NUCLEAR FACTOR Y, SUBUNIT B8
At2g37340	RS2Z33, RSZ33 (ARGININE/SERINE-RICH ZINC KNUCKLE-CONTAINING PROTEIN 33) - pre-mRNA splicing factor/ SR protein/ nucleic acid binding / nucleotide binding / zinc ion binding
At2g38880	NF-YB1 (NUCLEAR FACTOR Y SUBUNIT B1), HAP3A (HEME ACTIVATOR PROTEIN (YEAST) HOMOLOG 3A) - transcription factor/ confers drought tolerance
At2g40830	RHC1A (RING-H2 finger protein C1A), putative - cell wall/ protein binding / zinc ion binding
At2g43640	SRP14, signal recognition particle 14 kDa family protein
At2g43810	SmF (Small nuclear ribonucleoprotein F) - spliceosomal snRNP protein
At2g46790	APRR9 (PSEUDO-RESPONSE REGULATOR 9) - transcription regulator/clock function - essential to temperature-sensitive circadian system
At2g46830	CCA1, CIRCADIAN CLOCK ASSOCIATED 1 - transcription factor/ Myb-like transcriptional repressor in regulating circadian rhythms/ binds evening element in TOC1 to repress TOC1
At3g01150	PTB1 - POLYPYRIMIDINE TRACT-BINDING PROTEIN 1 - pre-mRNA splicing - role in pollen germination
At3g01540	DRH1 (DEAD BOX RNA HELICASE 1)
At3g06510	SFR2 (SENSITIVE TO FREEZING 2) - encodes protein with beta-glucosidase activity/ hydrolase - hydrolyzing O-glycosyl compounds/ freezing response
At3g07740	ADA2A (HOMOLOG OF YEAST ADA2 2A) - DNA binding/ transcription factor/ transcriptional adaptor ADA2a that interacts with histone acetyltransferase GCN5 homolog and CBF1/ response to cold
At3g10300	Calcium-binding EF hand family protein
At3g12250	TGA6 (TGA1a-related gene 6); DNA binding /basic leucine zipper transcription factor/ activation of SA-responsive genes factor
At3g12570	FYD - in chloroplast envelope
At3g13224	RNA recognition motif (RRM)-containing protein
At3g13570	SCL30A (SC35-LIKE SPLICING FACTOR 30A) - pre-mRNA splicing factor/ SR protein/ RNA binding
At3g14230	RAP2.2 - member of the ERF (ethylene response factor) subfamily B-2 of ERF/AP2 transcription factor family/ DNA binding
At3g16800	PP2C (Protein phosphatase 2C), putative
At3g17090	PP2C (Protein phosphatase 2C) family protein
At3g19840	PRP40C - Pre-mRNA-processing protein 40C/ binds CTD of RNA polymerase II/ scaffold for RNA processing machineries/ FF domain-containing protein / WW domain-containing protein
At3g20270	Lipid-binding serum glycoprotein family protein
At3g25840	Protein kinase family protein

At3g29160	AKIN11 (ARABIDOPSIS SNF1 KINASE HOMOLOG 11) - SNF1-related protein kinase - interacts with SCF subunit SKP1/ASK1 and 20S proteasome subunit PAD1
At3g46460	UBC13 (UBIQUITIN-CONJUGATING ENZYME 13) - ubiquitin protein ligase
At3g49430	SR34A (SER/ARG-RICH PROTEIN 34A) - pre-mRNA splicing factor - SR protein
At3g51880	HMGB1 (HIGH MOBILITY GROUP B 1), NFD1 (NUCLEOSOME/CHROMATIN ASSEMBLY FACTOR D1) - transcription factor
At3g53270	Unknown protein - similar to unnamed protein product [<i>Vitis vinifera</i>] (GB:CAO65717.1); contains domain PTHR15131 (PTHR15131)
At3g53500	RS2Z32 - pre-mRNA splicing factor / SR protein/ nucleic acid binding
At3g53570	AFC1 (ARABIDOPSIS FUS3-COMPLEMENTING GENE 1) - member of LAMMER kinase (CDC2-related) subfamily/ activates STE12-dependent functions in yeast
At3g55460	SCL30 (SC35-LIKE SPLICING FACTOR 30) - pre-mRNA splicing factor/ SR protein/ RNA binding
At3g61860	RS31 (ARGININE/SERINE-RICH SPLICING FACTOR 31) - pre-mRNA splicing factor/ SR protein/ RNA binding
At3g62190	DNAJ heat shock N-terminal domain-containing protein
At4g02200	Drought-induced-19-like 1 - drought-responsive family protein
At4g02430	SR34b - pre-mRNA splicing factor/ SR protein
At4g14410	basic helix-loop-helix (bHLH) family protein
At4g16845	VRN2 (REDUCED VERNALIZATION RESPONSE 2) - transcription factor/ mediates vernalization/ encodes zinc finger protein similar to Polycomb group (PcG) proteins/ maintains FLC repression cold treatment
At4g23260	CRK18 (CYSTEINE-RICH RLK [RECEPTOR-LIKE PROTEIN KINASE] 18 - cysteine-rich receptor-like protein kinase/ response to ABA
At4g24740	AFC2 (ARABIDOPSIS FUS3-COMPLEMENTING GENE 2) - LAMMER kinase/ putative role in phosphorylation of SR protein splicing factors
At4g25500	RS40 - pre-mRNA splicing factor/ SR protein/ RNA binding (previously ATRSP35 [<i>Arabidopsis thaliana</i> arginine/serine-rich splicing factor 35])
At4g26070	MEK1 (MAP KINASE/ ERK KINASE 1), MKK1 (MITOGEN ACTIVATED PROTEIN KINASE KINASE 1) - MAP Kinase Kinase/ stress-activated MAPK pathway/ phosphorylates the MAPK AtMPK4 in response to stress/ phosphorylated by MEKK1 in response to wounding.
At4g27050	F-box family protein
At4g27410	RD26 (RESPONSIVE TO DESICCATION 26) - NAC transcription factor/ transcriptional activator in ABA-mediated dehydration response
At4g29810	MKK2 (MAP KINASE KINASE 2) - MKK2 regulates MPK6 and MPK4 in response to cold and salt stresses.
At4g33060	CYP57, Peptidyl-prolyl cis-trans isomerase cyclophilin-type family protein
At4g34460	AGB1 (GTP BINDING PROTEIN BETA 1), ELK4 (ERECTA-LIKE 4) - heterotrimeric G-protein beta subunit involved in organ shape/ nucleotide binding
At4g35785	Transformer serine/arginine-rich ribonucleoprotein; Nucleic acid binding / nucleotide binding
At4g36690	ATU2AF65A - spliceosomal protein/ RNA binding
At4g36960	RNA recognition motif (RRM)-containing protein
At4g39260	ATGRP8 (GLYCINE-RICH RNA-BINDING PROTEIN 8), CCR1 (COLD-CIRCADIAN RHYTHM AND RNA BINDING 1) - regulates circadian oscillations of GRP7/GRP8 transcripts/ cold-induced/ RNA binding
At5g08185	MIR162A, MICRORNA 162A - targets DCL1
At5g09230	SRT2 - member of SIR2 (sirtuin) family histone deacetylases (HDAC) - chromatin silencing/ DNA binding
At5g09790	ATXR5/SDG15 (SETDOMAIN GROUP 15) - contains SET-domain and PCNA-binding domain/ DNA binding/ possible role in cell-cycle regulation or progression.

At5g09880	RNA recognition motif (RRM)-containing protein
At5g11200	UAP56a - DEAD/DEAH box helicase - exon junction protein
At5g11330	Monoxygenase family protein
At5g13220	JAS1 (JASMONATE-ASSOCIATED 1), JAZ10 (JASMONATE-ZIM-DOMAIN PROTEIN 10) - regulation of systemic acquired resistance/ response to jasmonic acid stimulus and wounding
At5g13730	SIG4 (SIGMA FACTOR 4); DNA binding/ DNA-directed RNA polymerase/ transcription factor/ regulation of plastid-encoded RNA polymerase PEP
At5g13790	AGL15 (AGAMOUS-LIKE 15) - DNA binding/ transcription factor/ member of the MADS domain family of regulatory factors
At5g16820	HSF3 (HEAT SHOCK FACTOR 3) - DNA binding / transcription factor/ not induced by heat/ required early in heat stress response
At5g18240	MYR1 (MYB-RELATED PROTEIN 1) - transcription factor
At5g18620	CHR17 (CHROMATIN REMODELING FACTOR 17) - DNA-dependent ATPase
At5g20250	DIN10 (DARK INDUCIBLE 10) - member of glycosyl hydrolase family 36/ hydrolyzing O-glycosyl compounds
At5g24270	SOS3 (SALT OVERLY SENSITIVE 3), CBL4 (CALCINEURIN B-LIKE PROTEIN 4) - encodes a calcium sensor essential for K ⁺ nutrition, K ⁺ /Na ⁺ selectivity, and salt tolerance
At5g35410	SOS2 (SALT OVERLY SENSITIVE 2), CIPK24 (CBL-INTERACTING PROTEIN KINASE 24) - kinase/ regulatory component controlling plant potassium nutrition
At5g37055	SEF (SERRATED LEAVES AND EARLY FLOWERING), SWC6 (homologue of yeast SWC6 protein) - conserved subunit of SWR1/SRCAP complex.
At5g41150	RAD1, UVH1(ULTRAVIOLET HYPERSENSITIVE 1) - DNA repair/ confers resistance to UV radiation
At5g43270	SPL2 (SQUAMOSA PROMOTER BINDING PROTEIN-LIKE 2) - DNA binding / transcription factor/ controls correct development of lateral organs in association with shoot maturation in the reproductive phase (with SPL10 and SPL11)
At5g43910	pfkB-type carbohydrate kinase family protein
At5g46110	APE2 - ACCLIMATION OF PHOTOSYNTHESIS TO ENVIRONMENT 2 - antiporter/ triose-phosphate transmembrane transporter/ involved in acclimation responses
At5g47210	Nuclear RNA-binding protein, putative
At5g50240	PIMT2 (PROTEIN-L-ISOASPARTATE METHYLTRANSFERASE 2)
At5g53180	PTB2, POLYPYRIMIDINE TRACT-BINDING PROTEIN 2 - pre-mRNA splicing - role in pollen germination
At5g57630	CIPK21 (CBL-INTERACTING PROTEIN KINASE 21), SNRK3.4 (SNF1-RELATED PROTEIN KINASE 3.4) - CBL-interacting protein kinase
At5g59950	Aly/REF - RNA and export factor-binding protein, putative
At5g63120	RH30 - ethylene-responsive putative DEAD box RNA helicase
At5g65050	MAF2 (MADS AFFECTING FLOWERING 2), AGL31 (AGAMOUS LIKE MADS-BOX PROTEIN 31) - transcription factor/ MADS box genes involved in control of flowering time
At5g65060	MAF3 - MADS AFFECTING FLOWERING 3 - MADS domain protein/flowering regulator/ transcription factor/ closely related to FLC
At5g65070	MAF4 - MADS AFFECTING FLOWERING 4 - MADS domain protein/flowering regulator/ transcription factor/ closely related to FLC
At5g65080	MAF5 (MADS AFFECTING FLOWERING 5)
At5g66010	RNA binding protein
At5g66210	CPK28 (calcium-dependent protein kinase 28) - calmodulin-dependent protein kinase/ member of Calcium Dependent Protein Kinase family

Table S4. Comparison of the degree of change in NMD-sensitive AS transcripts between *upf3-1* and *upf1-5*

Groups of transcripts	Number of up-regulated transcripts		
	<i>upf3-1>upf1-5</i>	<i>upf3-1=upf1-5</i>	<i>upf1-5>upf3-1</i>
<i>upf1-5/upf3-1/cycloheximide</i>	32	0	0
<i>upf1-5/upf3-1</i>	7	2	1
<u>cycloheximide</u>	52	3	6
Total	91	5	7

Supplementary Table 5. Comparison of the degree of change in NMD-sensitive AS transcripts between CHX and *upf* mutants

Groups of transcripts	Number of up-regulated transcripts	
	<i>upf</i> >CHX	CHX> <i>upf</i>
<i>upf1-5/upf3-1/cycloheximide</i>	20	12
<i>upf3-1/cycloheximide</i>	7	34
Total	27	46

Supplemental Table 6. Intron retention transcripts which are NMD sensitive, not expected to be turned over by NMD or cryptic introns

Primer pair	Gene ID	Name	Exon No.	Primer sites	AS event	Transcript	wt	<i>upf 1-5</i>	<i>upf 3-1</i>	NMD
Intron retention events not expected to be NMD - in frame introns										
314	At2g43410	FPA	7	Ex3-5	FS		0.34	0.31	0.31	
					IR4	In frame	0.66	0.69	0.69	No NMD
360	At3g06510	SFR2	10	Ex5-7	FS		0.83	0.83	0.82	
					IR6	In frame	0.12	0.09	0.07	No NMD
					E7 Alt 3'ss(+28)	PTC+; ds SJ	0.01	0.02	0.04	NMD
					E7 Alt 3'ss(-7)	PTC+; ds SJ	0.02	0.04	0.06	NMD
Intron retention events not expected to be NMD – 5'UTR intron with uORFs in all transcripts										
305	At1g01060	LHY	10	Ex1-3	FS		0.89	0.85	0.89	
					IR1 (5' UTR)	uORFs	0.06	0.07	0.06	No NMD
Intron retention events not expected to be NMD – C-terminal change										
325	At2g47890	Zn finger (B-box type) protein	4	Ex1-4	FS		0.92	0.93	0.88	
					IR3	C-terminal change	0.06	0.06	0.10	No NMD
Cryptic intron – splicing event not observed										
353	At1g27770	ACA1/PEA1	8	Ex3-5	FS	Not observed	0.00	0.00	0.00	
					IR 3	In frame	0.91	0.86	0.94	No NMD
361	At4g13850	AtGRP2	6	Ex3-6	FS	Not observed	0.00	0.00	0.00	
					IR5	In frame	1.00	1.00	1.00	No NMD
Intron retention transcripts which are NMD sensitive										
327	At5g59950	Aly/REF protein	5	Ex1-3	FS		0.84	0.70	0.53	
					IR1	PTC+; ds SJ	0.16	0.30	0.47	NMD
332	At3g16800	PP2C	6	Ex1-3	FS		0.84	0.81	0.75	
					IR2 (IVS1 spliced to distal site)	PTC+; ds SJ	0.05	0.07	0.10	NMD
					E2 Alt 3'ss(+18) (5' UTR)		0.06	0.06	0.06	No NMD
					Unknown (399 bp)		0.05	0.06	0.09	NMD
374	At4g36960	RRM-containing protein	13	Ex1-3	FS		0.84	0.74	0.61	
					IR1R (5' UTR)	PTC+; uORF in 5' UTR	0.05	0.15	0.32	NMD
378	At3g62190	DNAJ – N-terminal domain-containing protein	6		FS					
					IR4	PTC+; ds SJ	0.09	0.13	0.16	NMD