

Supporting information

1
2 **Supplementary Data Set S1.** CDS of ten homologous genes of the eIF5A family in
3 *N. tabacum*.

4 >eIF5A-1

5 ATGTCGGACGAAGAACACCATTTTGAATCAAAGGCCGATGCCGGAGCATC
6 AAAGACATATCCTCAACAAGCTGGTACTATTCGTAAGAATGGTCATATCGTC
7 AAAAAAACCGCCCTTGCAAGGTAGTTGAAGTTTCCACTTCCAAGACAGG
8 CAAGCACGGTCATGCTAAATGCCACTTTGTGGCTATTGACATTTTCACTGGA
9 AAGAAGCTTGAAGATATTGTTCCCTCTTCTCACA ACTGTGATGTTCCCTCATG
10 TGAATAGGACTGACTATCAGCTTATTGATATCTCTGAGGATGGATTTGTGAG
11 TCTGTTGACTGAAAATGGTAACACCAAGGATGACTTGAGGCTCCCAACTGA
12 CGATAATCTTCTGGCCCTGATCAAAGATGGTTTTGCTGAGGGGAAGGACCT
13 GGTTCTGTCAGTGATGTCTGCCATGGGAGAGGAGCAGATTTGTGGTATCAA
14 GGACGTTGGCCCCAAGTAG

15 >eIF5A-2

16 ATGTCGGACGAAGAGCACCACTTTGAATCAAAGGCCGACGCCGGAGCTTC
17 AAAGACCTATCCTCAGCAGGCTGGTACTATTCGTAAGAATGGTCATATCGTC
18 ATCAAAAACCGTCCTTGCAAGGTAGTTGAAGTTTCCACTTCCAAGACAGGC
19 AAGCACGGTCATGCTAAATGCCATTTTGTGGCGATTGACATTTTCACTGGAA
20 AGAAGCTTGAAGATATTGTTCCCTCTTCTCACAATTGTGATGTTCCCTCATGT
21 GAATAGGACTGACTATCAGCTTATTGATATCTCTGAGGATGGATTTGTGAGT
22 CTGTTGACTGAAAATGGTAACACCAAGGATGACTTGAGGCTCCCAACTGA
23 CGATAGTCTTCTGTCCCTGATCAAAGATGGTTTTGCTGAGGGGAAGGACCT
24 GGTTCTGTCAGTGATGTCTGCCATGGGAGAGGAGCAGATTTGTGGTATCAA
25 GGACATTGGCCCCAAGTAG

26 >eIF5A-3

27 ATGTCGGACGAGGAGCACCAGTTTGAGTCAAAGGCCGATGCCGGTGCATC
28 TAAAACTTACCCTCAACAAGCTGGTACTATCCGTAAGAACGGTCACATCGT
29 CATCAAAGGCCGTCCCTGCAAGGTTGTGGAAGTCTCTACATCCGAAACTGG
30 AAAGCATGGTCATGCAAAATGTCATTTTGTGCTATAGACATCTTCACTGGA
31 AAGAAGCTTGAGGATATTGTTCCATCTTCACACAATTGTGATGTGCCCCATG
32 TTAATCGTACAGATTATCAGCTTATTGACATCTCTGAAGATGGATTTGTGAGT
33 CTGCTCACCGAGAATGGTAACACCAAGGATGACCTTAGGCTGCCTACTGAT
34 GACAACCTCCTTACACAGATCAAGGATGGGTTTGCTGAGGGAAAAGACCT
35 TGTCGTGTCTGTCATGTCGGCCATGGGTGAGGAGCAGATTTGTGCCCTGAA
36 GGATATTGGTCCCAAGTAA

37 >eIF5A-4

38 ATGTCTGATGAAGAACACCATTTTGAGTCAAAGCAGATGCTGGTGCCTCT
39 AAAACTTACCCTCAACAAGCTGGTACCATTCGCAAAAATGGTTATATAGTTA
40 TTAAAGGCAGACCTTGCAAGGTTGTTGAGGTCTCCACTTCAAAAAGTGGC
41 AAGCACGGACATGCAAAATGTCACTTTGTGGCAATTGATATTTTCAATGGA
42 AAGAAGCTTGAAGATATTGTTCCCTCCCACTGTGATGTGCCCCATG
43 TTAATCGTACCGACTATCAGCTGATTGACATCTCTGAAGATGGTTTTGTGTC
44 TCTTCTTACTGAAAATGGAAACACCAAAGATGACCTCAGGCTTCCCACCGA
45 TGAAAACCTGCTGAACCAGGTTAAAGGTGGATTTGAGGAAGGAAAGGATC
46 TTGTGTTGTCTGTGATGTCTGCAATGGGTGAAGAGCAGATTGCTGCTGTGA
47 AGGACATTGGTACCAAGAAGTAA

48 >eIF5A-5

49 ATGTCGGACGAAGAACACCATTTTGAGTCAAAGGCAGATGCAGGCGCCTC
50 CAAAAGTACCCTCAACAAGCTGGTACTATCCGCAAAAATGGTTATATAGTC
51 ATCAAGGGCCGTCCCTGCAAGGTTGTTGAGGTCTCCACTTCAAAAAGTGG
52 CAAGCACGGACATGCTAAATGTCACTTTGTGGCAATTGACATTTTCAATGG
53 AAAGAACTTGAAGATATCGTTCCTCCCACTGTGATGTGCCACA

54 TGTCAATCGTACAGACTATCAGCTGATTGACATCTCTGAAGATGGTTTTGTC
55 TCCCTTCTTACTGAAAGTGGAAACACCAAGGATGACCTCCGTCTCCCCACC
56 GATGAAGCTCTGCTGAAGCAGGTAAAGATGGGTTTCAGGAAGGAAAGGA
57 TCTTGTGGTGTCTGTTATGTCTGCAATGGGCGAAGAGCAGATTAATGCCGTT
58 AAGGACATTGGTACCAAGAAGTAG

59 >eIF5A-6

60 ATGTCGGACGAGGAGCATCAGTTTGAGTCAAAGGCCGACGCCGGAGCTTC
61 GAAGACTTATCCTCAACAAGCTGGTACTATTCGTAAGAACGGTTACATTGTC
62 ATCAAAGCCCGCCCTTGCAAGGTCGTGGAAGTGTCTACTTCCAAGACTGGC
63 AAGCACGGACATGCCAAATGTCACCTTTGTTGCAATTGATATCTTCACTGGCA
64 AGAAGCTCGAGGATATCGTTCCTCTTCACACAATTGTGATGTCCCCCATGT
65 TAATCGTACAGATTACCAACTCATTGACATCTCTGAGGATGGATTTGTGAGT
66 CTACTIONACTGAAAATGGTAGTACCAAGGATGACCTCAGGCTTCCAACAGAT
67 GAGAATCTTCTCACGCAGATCAAGGATGGATTTGCTGAGGGCAAAGACCTT
68 GTTGTGTCTGTCATGTCTGCCATGGGTGAGGAGCAGATTTGTGCACTGAAG
69 GATATTGGTCCAAAGTAA

70 >eIF5A-7

71 ATGTCTGATGAAGAACACCATTTTGAGTCAAAGCAGATGCTGGTGCCTCT
72 AAAACTTATCCTCAACAAGCTGGTACCATTCGTAAAAATGGTTATATAGTTA
73 TTAAAGGCAGACCCTGCAAGGTTGTTGAGGTCTCCACTTCAAAAAGTGGC
74 AAGCACGGACATGCAAAATGTCACCTTTGTAGCAATTGATATTTCAATGGA
75 AAGAAGCTTGAAGATATCGTTCCTTCCCTCCCACAAGTGTGATGTGCCCCAT
76 GTTAATCGTACCGACTATCAGCTGATTGACATCTCTGAAGATGGTTTTGTGT
77 CTCTTCTTACTGAAAATGGAAACACCAAGACGACCTCAGGCTTCCCACCG
78 ATGAAGCCCTGCTGAGCCAGGTAAAGGTGGATTTGAGGAAGGAAAGGAT
79 CTTGTGTTGTCTGTGATGTCTGCAATGGGTGAAGAGCAGATTGCCGCTGTT
80 AAGGACATTGGTACCAAGAAGTAG

81 >eIF5A-8

82 ATGTCGGACGAAGAGCATCATTTTGAGTCGAAGGCAGATGCAGGCGCCTC
83 CAAAACCTTACCCTCAACAAGCTGGTACTATCCGCAAAAATGGTTATATAGTC
84 ATCAAAGGCCGCCCTGCAAGGTTGTTGAGGTCTCCACTTCAAAAACCTGG
85 CAAGCACGGACATGCTAAATGTCACCTTTGTGGCAATTGACATTTTCAATGG
86 AAAGAACTTGAAGATATCGTTCCTTCCTCCCACAACCTGTGATGTGCCACA
87 TGTCAATCGTACAGACTATCAGCTGATTGACATCTCTGAAGATGGTTTTGTC
88 TCCCTTCTTACTGAAAGTGGAAACACCAAGGATGATCTCCGGCTTCCCCT
89 GATGAGGCTCTGCTGAAGCAGGTTAAAGATGGGTTTCAGGAAGGAAAGGA
90 TCTTGTGCTGTCTGTTATGTCTGCAATGGGCGAAGAGCAGATTAATGCCGTT
91 AAGGACATTGGTACCAAGAAGTAG

92 >eIF5A-9

93 ATGTCGGACGAGGAGCACCAATTTGAGTCAAAGGCAGATGCCGGTGCATC
94 TAAAACCTTACCCTCAACAAGCTGGTACTATCCGTAAGAACGGTCATATCGTC
95 ATCAAAGGCCGTCCTGCAAGGTTGTGGAAGTCTCTACATCCAAAACCTGGA
96 AAGCACGGTCATGCAAAAATGTCATTTTGTGCTATTGACATCTTCACTGGAA
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98 TAATCGTACAGATTATCAGCTTATTGACATCTCTGAAGATGGATTTGTGAGT
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100 GACAACCTCCTTACACAGATCAAGGATGGTTTTGCTGAGGGAAAAGACCTT
101 GTTGTGTCTGTCATGTCAGCCATGGGTGAGGAGCAGATTTGTGCCCTGAAG
102 GATATTGGTCCCAAGTAA

103 >eIF5A-10

104 ATGTCGGACGAGGAGCATCAGTTTGAGTCAAAGGCCGACGCCGGAGCTTC
105 GAAGACTTATCCTCAACAAGCTGGTACTATTCGTAAGAACGGTTACATTGTC
106 ATCAAAGCCC GCCCTTGCAAGGTCGTGGAAGTGTCTACTTCCAAGACTGGC
107 AAGCACGGACATGCCAAATGTCACCTTTGTTGCAATTGATATCTTCACTGGCA

108 AGAAGCTCGAGGATATCGTTCCTCTTCACACAATTGTGATGTCCCCCATGT
109 TAATCGTACAGATTACCAACTCATTGACATCTCTGAGGATGGATTTGTGAGT
110 CTACTCACTGAAAATGGTAGTACCAAGGATGACCTCAGGCTTCCAACAGAT
111 GAGAATCTTCTCACGCAGATCAAGGATGGATTTGCTGAGGGCAAAGACCTT
112 GTTGTGTCTGTCATGTCTGCCATGGGTGAGGAGCAGATTTGTGCACTGAAG
113 GATATTGGTCCAAAGTAA

114

115 **Supplementary Data Set S2.** The CDS sequences of the eIF5A of other 20 plant
116 species

117 >*Nicotiana benthamiana* eIF5A

118 ATGTCTGACGAAGAACACCATTTTGAGTCCAAAGCTGATGCTGGTGCTTCA
119 AAAACTTACCCACAACAAGCAGGCACTATTCGCAAGAATGGTTATATAGTT
120 ATCAAAGGAAGACCCTGCAAGGTTGTTGAGGTCTCCACTTCCAAAAGTGG
121 CAAGCACGGACATGCAAAATGTCACCTTTGTGGCAATTGACATTTTCAATGG
122 AAAGAAGCTTGAAGATATTGTTCCCTTCATCTCACAATTGTGATGTGCCACAT
123 GTCAACCGTACAGACTATCAGCTGATTGACATCTCTGAAGATGGTTTTGTGT
124 CTCTTCTTACTGAAAATGGAAACACCAAAGATGACCTCAGGCTTCCCACCG
125 ATGACACCCTGCTGAGCCAGGTAAAGGTGGATTTGAGGAAGGAAAGGAT
126 CTCGTGCTGTCGGTGATGTCTGCAATGGGTGAAGAACAGATTTGTGCTGTG
127 AAGGACATTGGCAAGAAGACTAG

128 >*Capsicum annuum* eIF5A

129 ATGTCTGACGAAGAACACCATTTTGAGTCCAAAGCTGATGCTGGTGCTTCA
130 AAAACTTACCCACAACAAGCAGGCACTATTCGCAAGAATGGTTATATAGTT
131 ATCAAAGGAAGACCCTGCAAGGTTGTTGAGGTCTCCACTTCCAAAAGTGG
132 CAAGCACGGACATGCAAAATGTCACCTTTGTGGCAATTGACATTTTCAATGG
133 AAAGAAGCTTGAAGATATTGTTCCCTTCATCTCACAATTGTGATGTGCCACAT
134 GTCAACCGTACAGACTATCAGCTGATTGACATCTCTGAAGATGGTTTTGTGT
135 CTCTTCTTACTGAAAATGGAAACACCAAAGATGACCTCAGGCTTCCCACCG
136 ATGACACCCTGCTGAGCCAGGTAAAGGTGGATTTGAGGAAGGAAAGGAT
137 CTCGTGCTGTCGGTGATGTCTGCAATGGGTGAAGAACAGATTTGTGCTGTG
138 AAGGACATTGGCAAGAAGACTAG

139 >*Solanum verrucosum* eIF5A

140 ATGTCTGATGAAGAACACCATTTTGAGTCCAAAGCTGATGCTGGTGCCTCA
141 AAAACTTACCCTCAACAAGCTGGTACTATTCGCAAGAATGGTTATATAGTTA
142 TCAAAGGCAGACCTTGCAAGGTTGTTGAGGTCTCCACTTCCAAAACCTGGC
143 AAGCACGGACATGCAAAATGTCACCTTTGTGGCAATCGACATTTTCAATGGA
144 AAGAAGCTTGAAGATATTGTTTCCTTCATCCCACAATTGTGATGTGCCACATG
145 TCAATCGTACTGACTATCAACTGATTGACATCTCTGAAGATGGTTTTGTGTC
146 TCTTCTTACTGAAAATGGAAACACCAAAGATGACCTCAGACTTCCCACCGA
147 TGACGCCCTGTTGACCCAGGTTAAAGGTGGATTTGAGGAAGGAAAGGATC
148 TCGTTCTGTCTGTGATGTCTGCAATGGGTGAAGAGCAGATCTGTGCTGTGA
149 AGGACATTGG

150 >*Solanum lycopersicum* eIF5A

151 ATGTCTGATGAAGAACACCATTTTGAGTCCAAAGCTGATGCTGGTGCCTCA
152 AAAACTTACCCTCAACAAGCTGGTACTATTCGCAAGAATGGTTATATAGTTA
153 TCAAAGGCAGACCTTGCAAGGTTGTTGAGGTCTCCACTTCCAAAACCTGGC
154 AAGCATGGACATGCAAAATGTCACCTTTGTGGCAATCGACATTTTCAATGCA
155 AAAAAGCTTGAAGATATTGTTTCCTTCATCCCACAATTGTGATGTGCCACATG
156 TCAATCGTACTGACTATCAGCTGATTGACATATCTGAAGATGGTTTTGTGTC
157 TCTTCTTACTGAAAATGGAAACACCAAAGACGACCTCAGACTTCCCACCG
158 ATGACACCCTGTTGAACCAGGTTAAAGGTGGATTTGAGGAAGGAAAGGAT
159 CTCGTTCTGTCTGTGATGTCTGCAATGGGTGAAGAGCAGATCTGTGCTGTG
160 AAGGACATTGG

161 >*Nicotiana tabacum* eIF5A

162 ATGTCGGACGAAGAACACCATTTTGAGTCAAAGGCAGATGCAGGCGCCTC
163 CAAAACCTTACCCTCAACAAGCTGGTACTATCCGCAAAAATGGTTATATAGTC
164 ATCAAGGGCCGTCCTGCAAGGTTGTTGAGGTCTCCACTTCAAAAACCTGG
165 CAAGCACGGACATGCTAAATGTCACCTTTGTGGCAATTGACATTTTCAATGG
166 AAAGAAACTTGAAGATATCGTTTCCTTCCTCCCACAACCTGTGATGTGCCACA

167 TGTCAATCGTACAGACTATCAGCTGATTGACATCTCTGAAGATGGTTTTGTC
168 TCCCTTCTTACTGAAAGTGGAAACACCAAGGATGACCTCCGTCTCCCCACC
169 GATGAAGCTCTGCTGAAGCAGGTAAAGATGGGTTTCAGGAAGGAAAGGA
170 TCTTGTGGTGTCTGTTATGTCTGCAATGGGCGAAGAGCAGATTAATGCCGTT
171 AAGGACATTGGTACCAAGAAGTAG

172 >*Nicotiana attenuata* eIF5A

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175 TTAAAGGCAGACCCTGCAAGGTTGTTGAGGTCTCCACTTCAAAAAGTGGC
176 AAGCACGGACATGCAAAATGTCACCTTGTGGCAATTGATATTTTCAATGGA
177 AAGAAGCTTGAAGATATTGTTCCCTCCCACTGTGATGTGCCCCATG
178 TTAATCGTACCGACTATCAGCTGATTGACATCTCTGAAGATGGTTTTGTGTC
179 TCTTCTTACTGAAAATGGAAACACCAAAGACGACCTCAGGCTTCCCACCG
180 ATGAAGCCCTGCTGAACCAGGTAAAGGTGGATTTGAGGAAGGAAAGGAT
181 CTTGTGTTGTCTGTGATGTCTGCAATGGGCGAAGAGCAGATTGCCGCTGTT
182 AAGGACATTGG

183 >*Salvia miltiorrhiza* eIF5A

184 ATGTCGGACGAGGAGCATCAGTTCGAGTCGAAGGCCGACGCCGGTGCTTC
185 AAAAACCTACCCTCAGCAAGCTGGCACCATCCGCAAAAATGGGTACATAGT
186 TATCAAAGGGAGGCCTTGCAAGGTCGTTGAAGTCTCTACTTCGAAGACTGG
187 CAAGCATGGACATGCTAAGTGTCACCTTGTGGCGATCGACATATTTAATGGC
188 AAAAAGCTTGAAGACATTGTCCCGTCCTCCCACTGTGATGTGCCTCAT
189 GTCAATCGTACTGATTATCAACTGATTGACATCTCTGAAGATGGTTTTGTTT
190 CTCTTCTGACTGAAAATGGAAACACCAAAGATGATCTTAGGCTTCCAAGT
191 ATGACAGTCTGCTTGGTCCGATTAAGTGGGTTTGAGGAAGGAAAAGAC
192 CTCGTGGTGTCCGGTCATGTCTGCAATGGGCGAAGAGCAGAT

193 >*Quercus robur* eIF5A

194 GAGGAGCACCACCTTTGAGTCCAAGGCTGACGCTGGAGCCTCAAAGACTTA
195 CCCTCAGCAAGCTGGTACCATTCGCAAGAATGGCTATATTGTCATCAAGAA
196 CAGGCCTTGCAAGGTTGTTGAAGTTTCCACTTCAAAAACAGGAAAGCATG
197 GACATGCAAAGTGTCACTTTGTTGGAATCGACATATTTAATGGGAAGAAGC
198 TTGAAGATATTGTTCCCTTCATCCCACAACACTGTGATGTTCCCTCATGTTAATCGT
199 ACTGACTACCAGTTGATTGATATCTCTGAAGATGGTTTTGTGAGTCTTCTAA
200 CTGAGAATGGAAACACCAAGGATGATCTGAGGCTTCCCCTGATGACAGT
201 CTGCTTAGCCAGATTAAAGATGGGTTTGCTGATGGAAAGGACCTTGTGGTG
202 ACTGTCATGTCTGCAATGGGAGAGGAGCAGATCTGTGCCCTTAAGGACATT
203 GGC

204 >*Salvia hispanica* eIF5A

205 ATGTCGGACGAGGAGCATCAGTTTGAGTCCAAGGCAGATGCCGGTGCCTC
206 CAAGACTTACCCTCAGCAAGCTGGAACCATCCGCAAAAATGGCCACCTAG
207 TCATCAAAGGGAGGCCTTGCAAGGTCGTTGAAGTCTCTACCTCAAAGACC
208 GGCAAGCACGGACACGCCAAGTGTCACTTTGTGGCAATTGACATATTTAAT
209 GGCAAAAAGCTTGAAGATATTGTGCCATCATCTCACAACACTGTGATGTGCCT
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211 TTTCTCTTTTGACTGAAAATGGCAACACTAAAGATGATCTTAGGCTTCCAAC
212 TGATGAGACTCTGCTTGGCCAGATTAAAAGTGGGTTTCGAGGAAGGAAAGG
213 ACCTTGTGGTGTGTCAGTCATGTCTGCAATGGGCGAAGAGCAGAT

214 >*Pyrus x bretschneideri* eIF5A

215 ATGTCGGACGAGGAGCACCAGTTCGAATCCAAAGCCGACGCCGGAGCATC
216 CAAGACCTACCCACAGCAGGCTGGTACCATCCGCAAGAATGGCTACATCGT
217 CATAAAGGCCAGGCCTTGCAAGGTTGTTGAAGTCTCCACTTCCAAAACCTGG
218 AAAGCACGGTCACGCTAAGTGTCACTTTGTGGCAATTGATATCTTCAATGG
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221 GTCTCTTGACTGAAAATGGAAACACCAAGGATGATCTGAGGCTGCCCACT
222 GATGACAGTCTGCTTACCCAGATCAAGGACGGGTTAATGATGGAAAGGAT
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224 AAGGACATTGG

225 >*Mangifera indica* eIF5A

226 ATGTCCGACGAGGAGCACCCTTTGAATCAAAGGCTGATGCTGGAGCCTC
227 CAAAACCTTTTCCTCAACAAGCTGGAACCATCCGCAAGAATGGATATATTGT
228 CATCAAGAACCGTCCCTTGCAAGGTGGTTGAAGTTTCCACTTCAAAGACCG
229 GAAAACATGGACATGCAAAGTGCCACTTTGTAGGAATCGATATCTTTACTG
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234 CCTCGTGGTGTCTGTTATGTCTGCAATGGGAGAGGAGCAGATCTGTGCCCT
235 TAAGGACATTGG

236 >*Impatiens glandulifera* eIF5A

237 ATGTCTGACGAGGAGCATCACTTTGAGTCCAAGGCCGACGCCGGCGCATC
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245 GGTTGTGTCGGTTATGTCAGCCATGGGAGAGGAACAGATTTGTGCTCTTAA
246 GGATATCGGCCCGAAGAACTA

247 >*Populus nigra* eIF5A

248 ATGTCGGACGAGGAGCACCACTTTGAATCAAAGGCTGATGCAGGAGCCTC
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250 ATCAAGAACCGTCCTTGCAAGGTTGTTGAGGTTTCCACCTCAAAGACAGG
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256 GTGGTGACTGTCATGTCTGCCATGGGAGAGGAGCAGATCTGTGCCCTCAAG
257 GACATTGG

258 >*Vicia villosa* eIF5A

259 ATGTCCGACGAAGAGCACCAATTCGAAGCCGCCGCGATGCCGGTGCCTC
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261 CATCAAAGGCAGGCCATGCAAGGTTGTTGAAGTTTCTACTTCAAAAACAG
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266 ATGATGCACTTCTTACTCAGATTAAGGATGGATTTGCTGAAGGAAAAGATCT
267 TGTGGTTTCTGTTCATGTCTGCAATGGGAGAAGAGCAGATCTGTTCTTTGAA
268 GGACATAAGCAAGACCTAG

269 >*Malus ioensis* cultivar eIF5A

270 TCCAAGACCTACCCCCAGCAGGCCGGTACCATCCGCAAGAATGGCTACATC
271 GTCATCAAGGCCAGGCCTTGCAAGGTTGTTGAAGTCTCCACTTCCAAAACC
272 GGAAAGCACGGTCACGCTAAGTGTCACCTTGTGGCAATTGATATTTTCAAT
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276 CTGATGACAGTCTGCTTACCCAGATCAAGGACGGGTTTAATGATGGAAAGG
277 ATCTTGTGGTGACTGTCATGTCTGCCATGGGAGAGGAGCAGATCTGTGCCC
278 TTAAGGACATTGG

279 >*Macadamia integrifolia* eIF5A

280 ATGTCGGACGAGGAGCATCACTTCGAGTCTAAGGCCGACGCTGGGGCGTC
281 AAAGACTTACCCTCAGCAGGCTGGTACCATCCGCAAGAACGGTTACATTGT
282 CATTAAAGGCCAGACCCTGCAAGGTTGTCGAAGTTTCCACCTCCAAAACCTGG
283 CAAGCATGGTCATGCCAAGTGTCACTTTGTGGGGATTGATATCTTCAATGGA
284 AAGAAGCTTGAAGATATTGTGCCTTCGTCCCACAACCTGTGATGTTCCCCAT
285 GTTAATCGTACAGACTATCAGCTGATTGATATCTCTGAAGATGGTTTTGTGA
286 GCCTTTTGACTGAAAATGGTAATACCAAGGATGATCTGAGGCTTCCAACTG
287 ATGATAATCTGCTCACCCAGATCAAAGATGGCTTTGCTGAAGGAAAGGATC
288 TTGTGGTTACGGTCATGTCGGCGATGGGGGAAGAGCAGATCTGCACCCTCA
289 AAGACATTGGC

290 >*Nelumbo nucifera* eIF5A

291 ATGTCGGACGACGATCATCACTTTGAGTCTGAAGGCCGATGCTGGAGCATCC
292 AAGACCTTTCCTCAGCAGGCTGGAACCATCCGTAAAAACGGCTACATCGTC
293 ATTAAGGGAAGGCCCTGCAAGGTTGTTGAGGTCTCTACCTCCAAAACAGG
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297 TCTTCTCACTGAAAGTGGGAACACCAAGGATGATTTGAGGCTTCCCACTGA
298 TGATAATCTGCTCACCCAGATTAAAGATGGGTTTGCTGAAGGAAAGGATCT
299 CGTGGTGACGGTCATGTCGGCAATGGGAGAAGAGCAGATCTGCGCCCTCA
300 AGGACATTGGCCCCAAGAATA

301 >*Trifolium pratense* eIF5A

302 ATGTCGGACGAGGAACACCACTTCGATTCAGTTGCCGATGCCGGAGCCTCC
303 AAAACCTACCCTCAGCAGGCCGGTACCATCCGCAAAAACGGTTACATCGTC
304 ATCAAGGGCAGACCTTACAAGGTTGTTGAAGTTTCTATTTCAAAAACAGGA
305 AAGCATGGACATGCAAAGTGTCACCTTTGTTGCAATTGATATCTTCAACGGC
306 AAAAAGCTTGAAGATATTGTTCCCTTCATCTCACAATTGTGATGTTCCCTCATG
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309 GATAGTCTGCTTACTCAGATTAAAGATGGATTTGCTGAAGGAAAAGATCTT
310 GTGGTTTCTGTCATGTCTGCAATGGGAGAAGAACATATATGTGCCCTGGAG
311 GACATTGG

312 >*Helianthus annuus* eIF5A

313 ATGTCGGATGAAGAGCATCAGTTTGAGTCAAAAGCAGATGCAGGTGCATCC
314 AAAACTTACCCTCAACAAGCTGGTACCATTCGTAAGAATGGTTATATTGTCA
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319 TGCTGACTGAGAGTGGTGGCACTAAGGATGACCTCAGGCTCCCAACTGAT
320 GACGCTCTGCTCACGCAGATAAAGGATGGTTTTAGTGAGGGAAAAGACCT
321 TGTTGTGACAGTGATGTCTGCCATGGGAGAAGAGCAGATCTGTGCTCTTAA
322 GGACATTGG

323 >*Malus domestica* eIF5A

324 ATGTCGGACGAGGAGCACCAGTTCGAATCCAAGGCCGACGCCGGCGCATC
325 TAAGACCTATCCCCAGCAGGCTGGTACCATCCGCAAGAATGGCTACATCGT
326 CATCAAGGCCAGACCTTGCAAGGTTGTTGAAGTCTCCACCTCCAAACTG
327 GAAAGCACGGTCACGCTAAGTGCCACTTTGTGGCAATTGATATTTTCAATG
328 GAAAGAAGCTTGAAGATATTGTTCCCTTCGTCCCACAATTGTGATGTTCCCCA

329 TGTCAACCGTACTGACTACCAGCTGATTGATATCTCTGAGGATGGCTTTGTG
330 AGTCTTTTGACTGAAAATGGAAACACCAAGGATGATCTGAGGCTTCCCCT
331 GACGACAGTCTGCTTACCCAGATCAAGGACGGGTTTAATGATGGAAAGGAT
332 CTTGTGGTGACCGTCATGTCTGCCATGGGTGAGGAGCAGATCTGTGCCCTC
333 AAGGACATTGG

334 >*Cynara cardunculus* var. *scolymus* eIF5A

335 CACTTTGAGTTCAATGCTGATGCAGGTGCATCCAAAACCTTCCCACAACAA
336 GCTGGAACCATCCGAAAGAATGGTTACATTGTCATCAAGAACAGACCCTGC
337 AAGGTTGTTGAGGTTTCTACTTCAAAAACCTGGCAAGCACGGACATGCAAA
338 ATGTCATTTTGTGGGTATTGATGTATTTACTGGCAAGAAGCTTGAAGATATT
339 GTTCCTTCATCTCACAATTGTGATGTTCCCTCATGTCTCTCGTACAGATTATCA
340 ACTTATTGATATCTCTGAAGATGGTTTTGTGAGTCTTCTGACTGAAAGTGGG
341 ACCACCAAAGATGATCTCAGGCTTCCCACAGACGAAAATCTTGTTGCTCAG
342 ATAAAGATGGGTTTGCTGAAGGAAAAGATCTCGTGGTAAGCGTTATGTCC
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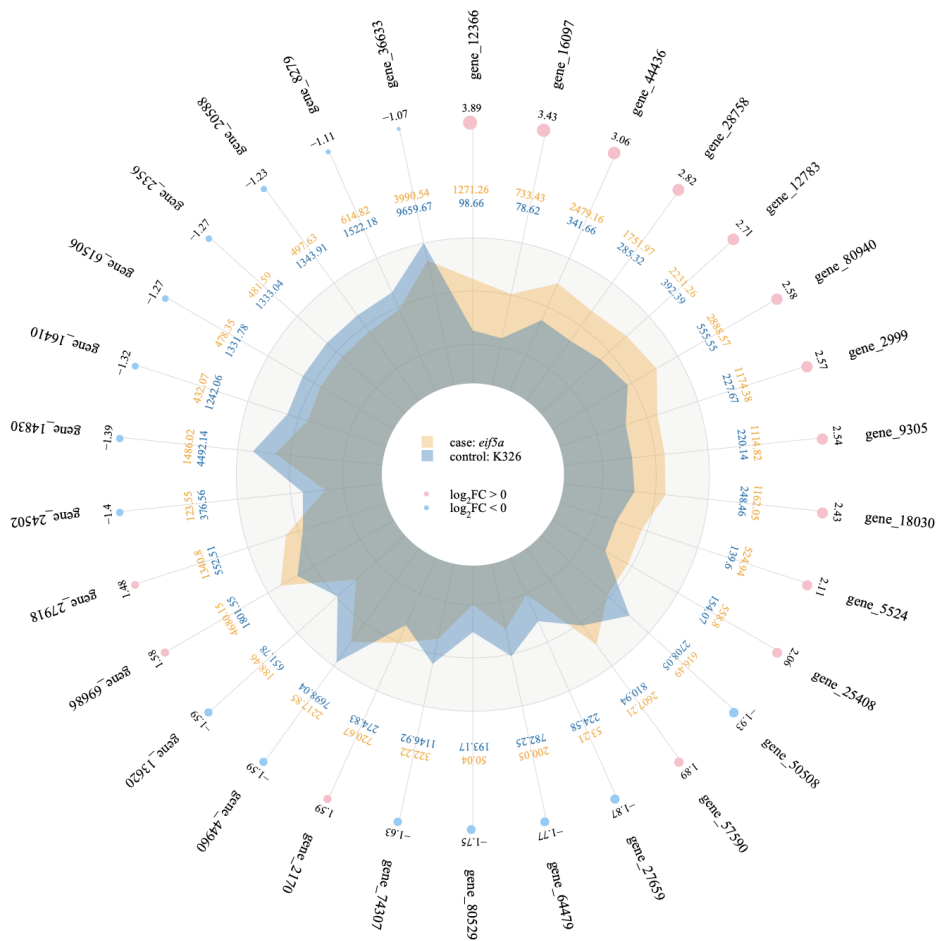
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345 **Supplementary Data Set S3.** The primers of RT-qPCR of *eif5a^{mut}*.

	F	R
<i>eif5a-1</i>	TTCTCACAACCTGTGATGTTCCCT	CTACTTGGGGCCAACGTCCTTG
<i>eif5a-2</i>	TTCTCACAATTGTGATGTTCCCT	CTACTTGGGGCCAATGTCCTTG
<i>eif5a-3</i>	TTCACACAATTGTGATGTGCC	TTACTTGGGACCAATATCCTTC
<i>eif5a-4</i>	CCACAACCTGTGATGTGCCCAT	TTAGTTCTTGGTACCAATGTCC
<i>eif5a-5</i>	CCACAACCTGTGATGTGCCACAT	CTAGTTCTTGGTACCAATGTCC
<i>eif5a-6</i>	TTCACACAATTGTGATGTCCCC	TTACTTTGGACCAATATCCTTC
<i>eif5a-7</i>	CCACAACCTGTGATGTGCCCAT	CTAGTTCTTGGTACCAATGTCC
<i>eif5a-8</i>	CCACAACCTGTGATGTGCCACAT	CTAGTTCTTGGTACCAATGTCC
<i>eif5a-9</i>	TTCACACAATTGTGATGTGCC	TTACTTGGGACCAATATCCTTC
<i>eif5a-10</i>	TTCACACAATTGTGATGTCCCC	TTACTTTGGACCAATATCCTTC

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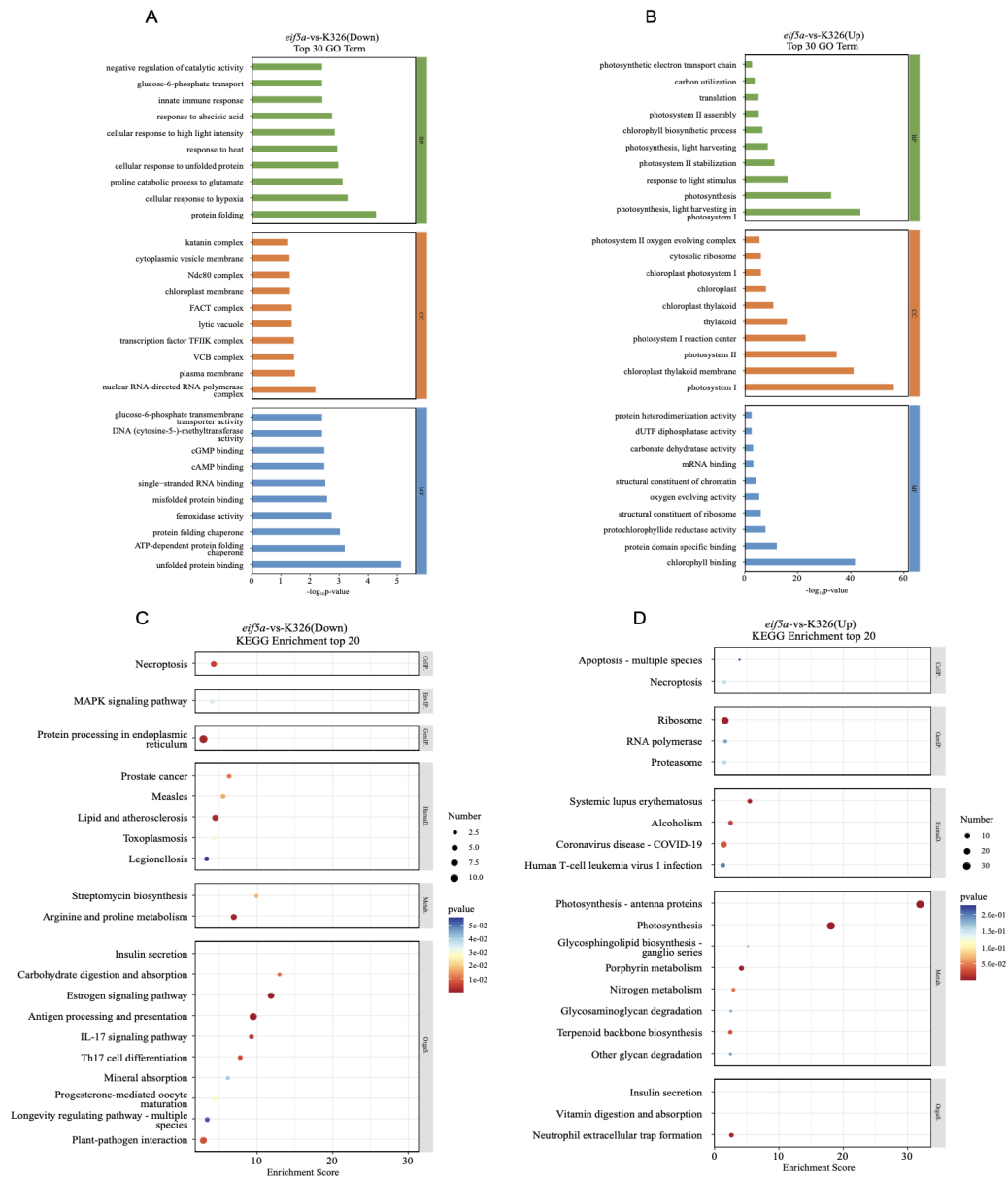
348

349 **Figure S1. The radar for DEGs.**

350 First circle: Upregulated genes are in red, downregulated genes are in light blue, and
 351 the size of the circles varies according to the magnitude of the $\log_2(\text{FC})$ values.

352 Second circle: The data in the outer ring represent the average expression levels of the
 353 experimental group, while the data in the inner ring represent the average expression
 354 levels of the control group. Third circle: The average expression levels of each gene in
 355 the experimental group and the control group. For example, if a gene has a very high
 356 expression level in the control group, a yellow spike will appear in the graph.

357



358

359 **Figure S2. Perform GO and KEGG analyses on 1,019 DEGs.**

360 (A) and (B) GO analyze: The top 30 down and up gene entries are presented.

361 (C) and (D) KEGG analyze: The top 20 down and up pathway enrichments are presented.