

**Table S4 Haplotype marker analysis performed on 15 KT mutants at the *Eps-3A<sup>m</sup>* locus**

Marker haplotype	<i>eps</i> mutant	CAPS_23_24	CAPS_37_38	CAPS_131_132	CAPS_341_342	PAV_261_262 PAV_295_296	CAPS_331_332	Heading date difference according to KT3-1;	<i>P</i> value for heading date difference
1	KT003-013_mut	A	A	A	+	-	+	-45.17	5.11*10 <sup>-6</sup>
1	KT003-014_mut	A	A	A	+	-	+	-36	0.014
1	KT003-015_mut	A	A	A	+	-	+	-32.61	1.05*10 <sup>-5</sup>
1	KT003-016_mut	A	A	A	+	-	+	-32.17	2.7*10 <sup>-7</sup>
1	KT003-027_mut	A	A	A	+	-	+	-33	5.87*10 <sup>-6</sup>
1	KT003-028_mut	A	A	A	+	-	+	-30.42	0.0015
1	KT003-029_mut	A	A	A	+	-	+	-39	5.28*10 <sup>-5</sup>
1	KT003-030_mut	A	A	A	+	-	+	-32	2.68*10 <sup>-6</sup>
1	KT003-031_mut	A	A	A	+	-	+	-31.72	4.03*10 <sup>-7</sup>
1	KT003-033_mut	A	A	A	+	-	+	-25.5	0.11
1	KT003-034_mut	A	A	A	+	-	+	-31.17	2.81*10 <sup>-7</sup>
1	KT003-035_mut	A	A	A	+	-	+	-54.11	1.6*10 <sup>-7</sup>
2	<i>KT003-010_mut</i>	B	A	A	-	-	+	-60.25	3.89*10 <sup>-6</sup>
3	KT003-011_mut	B	A	A	+	-	+	-52.5	4.5*10 <sup>-5</sup>
4	KT003-012_mut	A	A	C	+	-	+	-31.83	1.47*10 <sup>-6</sup>

“A” indicates a haplotype identical with line KT3-1 (*T. monococcum* variety *flavescens*), “B” – KT3-39 (*T. monococcum* strain KUS 82), “C” – KT3-2 (*T. monococcum* variety *vulgare*). In the columns regarding other three markers, “+” means presence of the PCR product, while “-” – absence. One line highlighted in *italics* had very likely independent deletion event at the *Eps-3A<sup>m</sup>* locus as indicated by the absence of the flanking marker PCR product CAPS\_341\_342, derived from putative gene *RFP*. Heading date difference was expressed in days.