

Appendix 1. Polymorphism of TaIAA15s

Haplotypes in *TaIAA15-3A*

Haplotypes	intron3			intron4	
	1026	1210	1386	2110	
Hap-A-I	A	G	A	C	PI466928
Hap-A-I	A	G	A	C	PI471035
Hap-A-I	A	G	A	C	Wenmai4
Hap-A-I	A	G	A	C	Yangmai11
Hap-A-I	A	G	A	C	CS
Hap-A-I	A	G	A	C	Yanzhan4110
Hap-A-I	A	G	A	C	Lumai14
Hap-A-I	A	G	A	C	Emai15
Hap-A-I	A	G	A	C	Yangmai17
Hap-A-I	A	G	A	C	Xianyangdasui
Hap-A-I	A	G	A	C	Mianyang19
Hap-A-I	A	G	A	C	Mianmai39
Hap-A-II	A	G	G	C	Laizhou953
Hap-A-III	C	G	A	C	PI487251
Hap-A-III	C	G	A	C	PI428125
Hap-A-III	C	G	A	C	PI252322
Hap-A-IV	C	C	A	T	PI466979

Haplotypes in *TaIAA15-3B*

Haplotypes	Intron1							Intron3						
	271	290	307	839-840 InDel	1038	1122	1146	1147	1273	1603	1744	1785	1883	
Hap-B-I	T	G	G	32bpInsertion	A	G	T	G	G	A	C	T	T	
Hap-B-II	T	G	G	32bpInsertion	A	G	T	G	G	A	C	T	T	
Hap-B-III	C	G	C	-	A	G	A	A	A	A	N	C	C	
Hap-B-IV	C	G	C	-	A	G	A	A	A	A	C	C	C	
Hap-B-V	C	G	C	-	A	G	A	A	A	A	C	C	C	
Hap-B-VI	C	G	C	-	A	G	A	A	A	A	C	C	C	
Hap-B-VII	C	G	C	-	A	G	A	A	A	A	C	C	C	
Hap-B-VIII	C	G	C	-	A	G	A	A	A	A	C	C	C	
Hap-B-IX	C	G	C	-	A	G	A	A	A	A	C	C	C	
Hap-B-X	C	G	C	-	A	G	A	A	A	A	C	C	C	
Hap-B-XI	C	G	C	-	A	G	A	A	A	A	C	C	C	
Hap-B-XII	C	G	C	-	A	G	A	A	A	A	C	C	C	
Hap-B-XIII	C	G	C	-	A	G	A	A	A	A	C	C	C	
Hap-B-XIV	C	G	C	-	A	G	A	A	A	A	C	C	C	
Hap-B-XV	C	G	C	-	A	G	A	A	A	A	C	C	C	
Hap-B-XVI	C	G	C	-	A	G	A	A	A	A	C	C	C	
Hap-B-XVII	C	G	C	-	A	G	A	A	A	A	C	C	C	
Hap-B-XVIII	C	G	C	-	A	G	A	A	A	A	C	C	C	
Hap-B-XIX	C	G	C	-	A	G	A	A	A	A	C	C	C	
Hap-B-XX	C	G	C	-	A	G	A	A	A	A	C	C	C	
Hap-B-XXI	C	G	C	-	A	G	A	A	A	A	C	C	C	
Hap-B-XXII	C	G	C	-	A	G	A	A	A	A	C	C	C	
Hap-B-XXIII	C	G	C	-	A	G	A	A	A	A	C	C	C	
Hap-B-XXIV	C	G	C	-	A	G	A	A	A	A	C	C	C	
Hap-B-XXV	C	G	C	-	A	G	A	A	A	A	C	C	C	
Hap-B-XXVI	C	G	C	-	A	G	A	A	A	A	C	C	C	
Hap-B-XXVII	C	G	C	-	A	G	A	A	A	A	C	C	C	
Hap-B-XXVIII	C	G	C	-	A	G	A	A	A	A	C	C	C	
Hap-B-XXIX	C	G	C	-	A	G	A	A	A	A	C	C	C	
Hap-B-XXX	C	G	C	-	A	G	A	A	A	A	C	C	C	
Hap-B-XXXI	C	G	C	-	A	G	A	A	A	A	C	C	C	
Hap-B-XXXII	C	G	C	-	A	G	A	A	A	A	C	C	C	
Hap-B-XXXIII	C	G	C	-	A	G	A	A	A	A	C	C	C	
Hap-B-XXXIV	C	G	C	-	A	G	A	A	A	A	C	C	C	
Hap-B-XXXV	C	G	C	-	A	G	A	A	A	A	C	C	C	
Hap-B-XXXVI	C	G	C	-	A	G	A	A	A	A	C	C	C	
Hap-B-XXXVII	C	G	C	-	A	G	A	A	A	A	C	C	C	
Hap-B-XXXVIII	C	G	C	-	A	G	A	A	A	A	C	C	C	
Hap-B-XXXIX	C	G	C	-	A	G	A	A	A	A	C	C	C	
Hap-B-XXX	C	G	C	-	A	G	A	A	A	A	C	C	C	

Haplotypes in *TaIAA15-3D*

Haplotypes	intron1	Exon2	3' UTR						
	209	550	782	817	829	1232	1767	1871	
Hap-D-I	C	A	G	G	T	T	T	C	TA1694
Hap-D-I	C	A	G	G	T	T	T	C	TA2391
Hap-D-II	T	A	C	T	G	C	C	G	TA2452
Hap-D-II	T	A	C	T	G	C	C	G	TA1618
Hap-D-II	T	A	C	T	G	C	C	G	TA1658
Hap-D-II	T	A	C	T	G	C	C	G	AL878
Hap-D-II	T	A	C	T	G	C	C	G	Yangmai17
Hap-D-II	T	A	C	T	G	C	C	G	CS
Hap-D-II	T	A	C	T	G	C	C	G	Am3
Hap-D-II	T	A	C	T	G	C	C	G	Email5
Hap-D-II	T	A	C	T	G	C	C	G	LZ953
Hap-D-II	T	A	C	T	G	C	C	G	Mianmai39
Hap-D-II	T	A	C	T	G	C	C	G	Mianyang19
Hap-D-II	T	A	C	T	G	C	C	G	Wenmai4
Hap-D-II	T	A	C	T	G	C	C	G	Xianyangdasui
Hap-D-II	T	A	C	T	G	C	C	G	Yangmai11
Hap-D-III	T	G	C	T	G	C	C	G	Lumai14
Hap-D-III	T	G	C	T	G	C	C	G	Yanzhan4110