Table 3. Deletion analysis of *Vrs1* mutants by PCR.

Name	NGB number	Origin	Mutagen	CF317052	CB880437(E30)	351N10-T7(203-392)	e34m13-260S	CB875128(E42)	Vrs1	111U15-f1-F	669N11-T7(U179-L402)	185K11-T7(U07/L213)	572D24-FC-R(U01/L407)	BJ242706(E18)	53F18-T7(end3)	BC12348	BC12063	BC05376	GAN007	BC14030
hex-v.03	115545 bat2	Bonus	Neutrons	+	-	-	-	-	-	-	+	+	+	+	+	+	+	+	+	+
hex-v.04	115546	Bonus	X-rays	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
hex-v.07	115548	Bonus	Neutrons	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
hex-v.08	115549	Bonus	Ethylene imine	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
hex-v.10	115551	Bonus	X-rayed pollen	+	-	-	-	-	-	-	+	+	+	+	+	+	+	+	+	+
hex-v.11	115552	Bonus	X-rayed pollen	+	-	-	-	-	-	-	+	+	+	+	+	+	+	+	+	+
hex-v.12	115553	Bonus	Neutrons	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
hex-v.13	115554	Foma	X-rays	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
hex-v.14	115555	Foma	Glycidol	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
hex-v.15	115556	Foma	Gamma-rays	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
hex-v.16	115557	Foma	Gamma-rays	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
hex-v.17	115558	Foma	Ethyl methanesulfonate	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
hex-v.18	115559	Bonus	X-rays	+	+	-	-	-	-	-	-	-	-	-	+	+	+	+	+	+
hex-v.19	115560	Foma	Methyl methanesulfonate	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
hex-v.21	115562	Foma	Ethyl methanesulfonate	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
hex-v.22	115563	Foma	Neutrons + Ethyl methanesulfonate	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
hex-v.23	115564	Foma	Ethylene imine	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
hex-v.24	115565	Foma	Propanedisulfonic acid diethyl ester	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
hex-v.25	115566	Foma	Ethylene imine	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
hex-v.26	115567	Foma	Ethyl methanesulfonate	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
hex-v.27	115568	Foma	N-ethyl-N-nitrosourea	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
hex-v.28	115569	Foma	Ethylene imine	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
hex-v.29	115570	Foma	Ethylene imine	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
hex-v.30	115571	Foma	Gamma-rays	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
hex-v.31	115572	Foma	Ethylene imine	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
hex-v.33	115573	Kristina	Neutrons	+	+	+	-	+	+	+	+	+	+	+	+	+	+	+	+	+
hex-v.35	115574	Foma	Gamma-rays	+	-	-	-	-	-	-	+	+	+	+	+	+	+	+	+	+
hex-v.36	115575	Kristina	Ethyl methanesulfonate	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
hex-v.38	115576	Kristina	iso-Propyl methanesulfonate	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
hex-v.39	115577	Kristina	iso-Propyl methanesulfonate	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
hex-v.41	115578	Kristina	Neutrons	+	-	-	-	-	-	-	-	-	-	-	-	-	-	+	+	+
hex-v.42	115579	Kristina	Neutrons	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
hex-v.43	115580	Kristina	Ethyl methanesulfonate	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
hex-v.44	115581	Bonus	iso-Propyl methanesulfonate	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
hex-v.45	115582	Bonus	iso-Propyl methanesulfonate	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
hex-v.46	115583	Bonus	Neutrons	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
hex-v.47	115584	Bonus	Ethyl methanesulfonate	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
hex-v.48	115585	Bonus	X-rays	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
hex-v.49	115586	Bonus	Sodium azide	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Int-d.11	115429	Foma	Ethylene imine	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Int-d.12	115430	Foma	Ethylene imine	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Int-d.22	115440	Foma	Methyl methanesulfonate	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Int-d.24	115442	Foma	Buthyl methanesulfonate	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Int-d.28	115446	Foma	iso-Propyl methanesulfonate	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Int-d.36	115454	Foma	Ethyl methanesulfonate	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Int-d.40	115458	Kristina	Ethyl methanesulfonate	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Int-d.41	115459	Kristina	Ethyl hydroxy ethanesulfonate	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Int-d.50	115468	Kristina	Gamma-rays	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Int-d.57	115475	Kristina	iso-Propyl methanesulfonate	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Int-d.67	115485	Kristina	Ethyl methanesulfonate	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Int-d.68	115486	Kristina	Ethyl methanesulfonate	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Int-d.69	115487	Kristina	Ethyl methanesulfonate	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Int-d.73	115491	Bonus	Ethyl methanesulfonate	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Int-d.80	115498	Bonus	X-rays	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Int-d.82	115500	Bonus	Ethyl methanesulfonate	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
MGM		Misato Golden	Gamma-rays	+	-	-	-	-	-	-	-	-	-	-	-	-	-	+	+	+
NGM13		New Golden	Gamma-rays	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Bonus	14657		(control)	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Foma	14660		(control)	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Kristina	14661		(control)	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Misato Golden			(control)	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
New Golden			(control)	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Morex			(control)	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		Map distance from CF317052 (cM)		0	0.07		0.16	0.16	0.16	0.16				0.16	0.24	0.24	0.42	0.48	0.57	0.72
		Physical distance from the end of BAC contig (kb)			9	83	146	163	164	190	261	262	324	366	461	472				