

**Table of Loci for Traits in Grapevine Relevant for Breeding and Genetics:****Update: October 09, 2020**

Associated markers, their chromosomal localisation, and the donor genotype/species are given. Chromosomal position of a trait/allele is given in megabases according to the 12 x genome sequence of PN40024 (<http://www.genoscope.cns.fr/vitis>).

The symbols were discussed and assigned at the International Conference on Grapevine Breeding and Genetics at Geneva, August 1 - 5, 2010. Follow up information on naming of loci will be provided on VIVC to avoid homonyms.

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Trait	Symbol	Chr	Position on chr [Mb]	Associated marker	Parent 1	Parent 2	Population size	Genotype of origin	Original species of trait	Reference	Comment	
Resistance												
<i>Agrobacterium spec.</i>	<i>Reg1</i>	15	7.1	UDV015	Kunbarát	Sárfehér	272	Kunbarát	<i>V. amurensis</i>	Kuczog et al. (2012)	crown gall	
			9.3	9M3-3								
<i>Colletotrichum gloeosporioides</i> ( <i>Glomerella cingulata</i> )	<i>CgR1</i>	14	4.1	np19345	Cabernet Sauvignon	Shuang Hong	91	Shuang Hong	<i>V. amurensis</i>	Fu et al. (2019)	ripe rot	
<i>Daktulosphaira vitifoliae</i>	<i>Rdv1</i>	13		GF13_1	GF.V3125	Börner	188	Börner	<i>V. cinerea</i>	Zhang et al. (2009)		
			21.9	GF13_9								
				GF13-1	GF.V3125	Börner	188	Börner	<i>V. cinerea</i>	Hausmann et al. (2011)		
			21.5	GF13-7								
<i>Daktulosphaira vitifoliae</i>	<i>Rdv2</i>	14	4.9	S14_4921219	<i>V. cinerea</i> C2-50	Riesling	90	<i>V. cinerea</i> C2-50	<i>V. cinerea</i>	Smith et al. (2018)	root resistance	
<i>Daktulosphaira vitifoliae</i>	<i>Rdv3</i>	14	5.0	S14_5049399	MN1264	MN1246	125	MN1264		Clark et al. (2018)	foliar resistance	
<i>Daktulosphaira vitifoliae</i>	<i>Rdv4</i>	4			MN1264	MN1246	125	MN1264		Clark et al. (2018)	foliar resistance	
<i>Daktulosphaira vitifoliae</i>	<i>Rdv5</i>	5			MN1264	MN1246	125			Clark et al. (2018)	root resistance	
<i>Daktulosphaira vitifoliae</i>	<i>Rdv6</i>	7			VRH8771	Cabernet Sauvignon	135	VRH8771	<i>M. rotundifolia</i>	Rubio et al. (2020)	root resistance	
<i>Daktulosphaira vitifoliae</i>	<i>Rdv7</i>	3	5.5	3_5494608	VRH8771	Cabernet Sauvignon	135	VRH8771	<i>M. rotundifolia</i>	Rubio et al. (2020)	root resistance	
<i>Daktulosphaira vitifoliae</i>	<i>Rdv8</i>	10			VRH8771	Cabernet Sauvignon	135	VRH8771	<i>M. rotundifolia</i>	Rubio et al. (2020)	root resistance	
<i>Diaporthe ampelina</i> ( <i>Phomopsis viticola</i> )	<i>Rda1</i>	15	19.6	S15_19560016	Chardonnay	<i>V. cinerea</i> B9	148	<i>V. cinerea</i> B9	<i>V. cinerea</i>	Barba et al. (2018)	Cane, cluster	
				S15_19591538	Horizon	<i>V. cinerea</i> B9	162	<i>V. cinerea</i> B9	<i>V. cinerea</i>		Cane, cluster	
			19.3	S15_19300044	Horizon	Illinois 547-1	366	Illinois 547-1	<i>V. cinerea</i>		Cane	
<i>Diaporthe ampelina</i> ( <i>Phomopsis viticola</i> )	<i>Rda2</i>	7	1.2	VVMD7	Horizon	<i>V. cinerea</i> B9	162	Horizon		Barba et al. (2018)	Cane, cluster	
			1.8	VrZAG62								
			3.1	VVib22								
			3.1	S7_3127568								
			1.9	S7_1912889								Horizon
<i>Erysiphe necator</i>	<i>Ren1</i>	13		UDV020	Nimrang	Kishmish vatkana	310	Kishmish vatkana	<i>V. vinifera</i>	Hoffmann et al. (2008)		
			18.4	VMC9h4-2								
			18.4	VMCNg4e10.1								
<i>Erysiphe necator</i>	<i>Ren2</i>	14	26.9	CS25	Horizon	Illinois 547-1	58	Illinois 547-1		Dalbo et al. (2001)		
<i>Erysiphe necator</i>	<i>Ren3</i>	15	7.1	UDV015b	Regent	Lemberger	153	Regent		Welter et al. (2007)		
			10.9	VViv67								
				ScORA7-760	Regent	Lemberger	152	Regent		Akkurt et al. (2007)		
			4.9	VChr15CenGen02	Regent	RedGlobe	206	Regent		van Heerden et al. (2014)		
			10.9	GF15-28 / VViv67	GF.GA-47-42	Villard blanc	151			Zyprian et al. (2016)		
			9.3	GF15-42	Regent	Lemberger	132	Regent		Zendler et al. (2017)		
<i>Erysiphe necator</i>	<i>Ren4</i>	18	26.9	VMC7f2	C166-043	F8909-08	42	C166-043	<i>V. romanetii</i>	Riaz et al. (2012)		
			26.9	SNPs	C87-41	B70-57	57	C87-41	<i>V. romanetii</i>	Mahanil et al. (2012)		
<i>Erysiphe necator</i>	<i>Ren5</i>	14	4.8	VMC9c1	Regale	Regale	191	Regale	<i>M. rotundifolia</i>	Blanc et al. (2012)		
<i>Erysiphe necator</i>	<i>Ren6</i>	9	8.6	PN9-057	F2-35	<i>V. piasezkii</i> (DVIT2027)	277	<i>V. piasezkii</i> (DVIT2027)	<i>V. piasezkii</i>	Pap et al. (2016)		
			9.1	PN9-068								
<i>Erysiphe necator</i>	<i>Ren7</i>	19	0.2	VVIp17.1	F2-35	<i>V. piasezkii</i> (DVIT2027)	277	<i>V. piasezkii</i> (DVIT2027)	<i>V. piasezkii</i>	Pap et al. (2016)		
			0.9	VMC9a2.1								
<i>Erysiphe necator</i>	<i>Ren8</i>	18	13.2	UDV117	GF.GA-47-42	Villard blanc	151			Zyprian et al. (2016)		
				SPS_P_SNP632GF								
<i>Erysiphe necator</i>	<i>Ren9</i>	15	1.4	CenGen6	Regent	Lemberger	153	Regent		Zendler et al. (2017)		
<i>Erysiphe necator</i>	<i>Ren10</i>	2	17.9	S2_17854965	MN1264	MN1214	147	Seyval blanc		Teh et al. (2017)		
				Haploblock validation	MN1264	MN1246	125					

Trait	Symbol	Chr	Position on chr [Mb]	Associated marker	Parent 1	Parent 2	Population size	Genotype of origin	Original species of trait	Reference	Comment	
<i>Erysiphe (Uncinula) necator</i>	<i>Run1</i>	12	13.1	VMC4f3.1	VRH3082-1-42	Cabernet Sauvignon	161	VRH3082-1-42	<i>M. rotundifolia</i>	Barker et al. (2005)	Powdery mildew resistance originating from Muscaninia named as <i>Run</i>	
			20.4	VMC8g9								
			16.4	49MRP1.P2	VRH3082-1-42	Cabernet Sauvignon	2575	Feechan et al. (2013)				
			16.8	CB53.54	VRH3176-21-11	Cabernet Sauvignon	722					
			VRH3161-6-4	Cabernet Sauvignon	110							
				BC1:M. rotundifolia	Syrah	139						
<i>Erysiphe (Uncinula) necator</i>	<i>Run2.1</i>	18	26.9	VMC7f2	JB81-107-11	Chenin Blanc	97	Magnolia	<i>M. rotundifolia</i>	Riaz et al. (2011)	resistant tissue: Cane	
			20.9	VMCNg1e3								
			23.4	VVin16	JB81-107-11	Tokay	47				Rachis	
			26.9	VMC7f2							Rachis	
			26.9	VMC7f2			80				Fruit	
				A90-71	Flame Seedless					Leaf, Cane, Rachis, Fruit		
<i>Erysiphe (Uncinula) necator</i>	<i>Run2.2</i>	18	26.9	VMC7f2	e2-9	Malaga Rosada	255	Trayshed	<i>M. rotundifolia</i>	Riaz et al. (2011)		
<i>Erysiphe necator</i>	<i>Sen1</i>	9	13.6 - 18.0	S8_19258484	<i>V. rupestris</i> B38	Chardonnay	85	Chardonnay	<i>V. vinifera</i>	Barba et al. (2014)		
<i>Guignardia bidwellii</i>	<i>Rgb1</i>	14	26.7	GF14-42	GF.V3125	Börner	202	Börner		Rex et al. (2014)		
<i>Guignardia bidwellii</i>	<i>Rgb2</i>	16	15.3	VChr16c	GF.V312	Börner	202	Börner		Rex et al. (2014)		
<i>Meloidogyne javanica</i> (root knot nematode)	<i>MjR1</i>	18	31.2	S18_31160355	C2-50	Riesling	90	C2-50	<i>V. cinerea</i>	Smith et al. (2018)		
			34.0	S18_33954011								
Pierce's disease ( <i>Xylella fastidiosa</i> )	<i>Pdr1</i>	14	25.3	VMCNg3h8	<i>V. rupestris</i>	<i>V. arizonica</i>	181		<i>V. arizonica</i>	Riaz et al. (2006)		
			26.6	VVin64							Riaz et al. (2008)	
			26.1	UDV095								
<i>Plasmopara viticola</i>	<i>Rpv1</i>	12	10.3	VVib32	Syrah	28-8-78		28-8-78	<i>M. rotundifolia</i>	Merdinoglu et al. (2003)		
<i>Plasmopara viticola</i>	<i>Rpv2</i>	18			Cabernet Sauvignon	8624	129	8624	<i>M. rotundifolia</i>	Wiedemann-Merdinoglu et al. (2006)		
<i>Plasmopara viticola</i>	<i>Rpv3</i>	18		UDV112	Regent	Lemberger	153	Regent		Welter et al. (2007)	Regent and Bianca descend from Seibel 4614 (= <i>Rpv3</i> <sup>299-270</sup> = <i>Rpv3-1</i> )	
			24.9	UDV305	Chardonnay	Bianca	116	Bianca	Bellin et al. (2009)			
			26.9	VMC7f2								
			26.9	VMC7f2	Regent	RedGlobe	206	Regent	van Heerden et al. (2014)			
	<i>Rpv3.1</i> (= <i>Rpv3</i> <sup>299-270</sup> )	24.9	UDV305				Seibel 4614	<i>V. rupestris</i>	Di Gaspero et al. (2012)	Pedigree analysis		
		26.1	UDV737									
	<i>Rpv3.2</i> (= <i>Rpv3</i> <sup>null-297</sup> )	24.9	UDV305				Munson (Jaeger 70)	<i>V. rupestris</i> or <i>V. linccumii</i>	Di Gaspero et al. (2012)	Pedigree analysis		
		26.1	UDV737									
	<i>Rpv3.3</i> (= <i>Rpv3</i> <sup>null-271</sup> )	25.9	GF18-06	GF18-	GF.GA-47-42	Villard blanc	151	GF.GA-47-42	Villard blanc	<i>V. rupestris</i> or <i>V. linccumii</i>	Zyprian et al. (2016)	
		26.9	08									
	<i>Rpv3</i> <sup>321-312</sup>	24.9	UDV305				Noah	<i>V. labrusca</i> or <i>V. riparia</i>	Di Gaspero et al. (2012)	Pedigree analysis		
		26.1	UDV737									
	<i>Rpv3</i> <sup>361-299</sup>	24.9	UDV305				<i>V. rupestris</i> Ganzin	<i>V. rupestris</i>				
		26.1	UDV737									
	<i>Rpv3</i> <sup>299-314</sup>	24.9	UDV305				<i>V. rupestris</i> Ganzin	<i>V. rupestris</i>				
26.1		UDV737										
<i>Rpv3</i> <sup>null-287</sup>	24.9	UDV305				Bayard (Couderc 28-112)	<i>V. rupestris</i> or <i>V. labrusca</i>					
	26.1	UDV737										
<i>Plasmopara viticola</i>	<i>Rpv4</i>	4	4.7	VMC7h3	Regent	Lemberger	153	Regent		Welter et al. (2007)		
			5.2	VMCNg2e1								
<i>Plasmopara viticola</i>	<i>Rpv5</i>	9	4.0	VVi652b	Cabernet Sauvignon	Gloire de Montpellier	138	Gloire de Montpellier	<i>V. riparia</i>	Marguerit et al. (2009)		
<i>Plasmopara viticola</i>	<i>Rpv6</i>	12	20.4	VMC8g9	Cabernet Sauvignon	Gloire de Montpellier	138	Gloire de Montpellier	<i>V. riparia</i>	Marguerit et al. (2009)		
<i>Plasmopara viticola</i>	<i>Rpv7</i>	7	11.4	UDV097	Chardonnay	Bianca	116	Bianca		Bellin et al. (2009)		
<i>Plasmopara viticola</i>	<i>Rpv8</i>	14	6.6	Chr14V015	<i>V. amurensis</i> Ruprecht	<i>V. amurensis</i> Ruprecht	232	<i>V. amurensis</i> Ruprecht	<i>V. amurensis</i>	Blasi et al. (2011)		
<i>Plasmopara viticola</i>	<i>Rpv9</i>	7	16.6	CCoAOMT	Moscato Bianco	<i>V. riparia</i> W63	174	<i>V. riparia</i> W63	<i>V. riparia</i>	Moreira et al. (2011)	CCoAOMT is the candidate gene from which the marker IN0006 was derived	

Trait	Symbol	Chr	Position on chr [Mb]	Associated marker	Parent 1	Parent 2	Population size	Genotype of origin	Original species of trait	Reference	Comment	
<i>Plasmopara viticola</i>	<i>Rpv10</i>	9	3.7	GF09-46	GF.GA-52-42	Solaris	256	Solaris	<i>V. amurensis</i>	Schwander et al. (2012)		
<i>Plasmopara viticola</i>	<i>Rpv11</i>	5	4.5	VVMD27	Regent	Lemberger	153	Regent		Fischer et al. (2004)		
				CS1E104J11F	Chardonnay	Bianca	116	Chardonnay		Bellin et al. (2009)		
			4.1	VCHR05C	GF.GA-52-42	Solaris	256	Solaris		Schwander et al. (2012)		
<i>Plasmopara viticola</i>	<i>Rpv12</i>	14	8.0	UDV014	99-1-48	Pinot noir	180	99-1-48	<i>V. amurensis</i>	Venuti et al. (2013)		
			9.3	UDV304	Cabernet Sauvignan	20/3		<i>V. amurensis</i>				
				rgvvin180								
			10.1	UDV370								
<i>Plasmopara viticola</i>	<i>Rpv13</i>	12	10.0	VMC1g3.2	Moscato Bianco	<i>V. riparia</i> W63	174	<i>V. riparia</i> W63	<i>V. riparia</i>	Moreira et al. (2011)		
<i>Plasmopara viticola</i>	<i>Rpv14</i>	5	20.2	GF05-13	GF.V3125	Börner	202	Börner	<i>V. cinerea</i>	Ochssner et al. (2016)		
<i>Plasmopara viticola</i>	<i>Rpv15</i>	18			<i>V. piasezkii</i> (DVIT2027)	F2-35	94	<i>V. piasezkii</i> (DVIT2027)	<i>V. piasezkii</i>	Pap et al. (in preparation)		
<i>Plasmopara viticola</i>	<i>Rpv16</i>									Pap et al. (in preparation)		
<i>Plasmopara viticola</i>	<i>Rpv17</i>	8	11.7		<i>V. rupestris</i> B38	Horizon	163	Horizon		Divilov et al. (2018)		
<i>Plasmopara viticola</i>	<i>Rpv18</i>	11	15.4		<i>V. rupestris</i> B38	Horizon	163	Horizon		Divilov et al. (2018)		
<i>Plasmopara viticola</i>	<i>Rpv19</i>	14	29.5		<i>V. rupestris</i> B38	Horizon	163	<i>V. rupestris</i> B38	<i>V. rupestris</i>	Divilov et al. (2018)		
<i>Plasmopara viticola</i>	<i>Rpv20</i>	6	0.9		Horizon	<i>V. cinerea</i> B9	152	Horizon		Divilov et al. (2018)		
<i>Plasmopara viticola</i>	<i>Rpv21</i>	7	2.1		Horizon	<i>V. cinerea</i> B9	152	Horizon		Divilov et al. (2018)		
<i>Plasmopara viticola</i>	<i>Rpv22</i>									Fu et al. (2020)		
<i>Plasmopara viticola</i>	<i>Rpv23</i>									Fu et al. (2020)		
<i>Plasmopara viticola</i>	<i>Rpv24</i>									Fu et al. (2020)		
<i>Plasmopara viticola</i>	<i>Rpv25</i>	15	3.0	Marker561375	Red Globe	Shuangyou	149	Shuangyou	<i>V. amurensis</i>	Lin et al. (2019)		
			3.9	Marker549779								
<i>Plasmopara viticola</i>	<i>Rpv26</i>	15	14.7	Marker525926	Red Globe	Shuangyou	149	Shuangyou	<i>V. amurensis</i>	Lin et al. (2019)		
			15.0	Marker526446								
<i>Plasmopara viticola</i>	<i>Rpv27</i>	18	24.6	VVCS1H077H16R1-1	Norton	Cabernet Sauvignon	182	Norton	<i>V. aestivalis</i>	Sapkota et al. (2019)		
			26.0	UDV737								
<i>Plasmopara viticola</i>	<i>Rpv28</i>	10	1.2	VVH01	<i>V. rupestris</i> B38	<i>V. riparia</i> HP-1	294	<i>V. rupestris</i> B38	<i>V. rupestris</i>	Bhattarai et al. (2020)		
			1.3	UDV-073								
<i>Plasmopara viticola</i>	<i>Rpv29</i>	14	21.6	chr14_21613512_C_T	Mgaloblishvili	Mgaloblishvili	132	Mgaloblishvili	<i>V. vinifera</i>	Sargolzaei et al. (2020)	84 OPs of Mgaloblishvili, 48 genotypes of Georgian germplasm collection	
<i>Plasmopara viticola</i>	<i>Rpv30</i>	3	16.2	cn_C_T_chr3_16229046	Mgaloblishvili	Mgaloblishvili	132	Mgaloblishvili	<i>V. vinifera</i>	Sargolzaei et al. (2020)	84 OPs of Mgaloblishvili, 48 genotypes of Georgian germplasm collection	
<i>Plasmopara viticola</i>	<i>Rpv31</i>	16	21.3	li_T_C_chr16_21398409	Mgaloblishvili	Mgaloblishvili	132	Mgaloblishvili	<i>V. vinifera</i>	Sargolzaei et al. (2020)	84 OPs of Mgaloblishvili, 48 genotypes of Georgian germplasm collection	
<i>Xiphinema index</i>	<i>XiR1</i>	19	20.9	VMC5a10	<i>V. rupestris</i>	<i>V. arizonica</i>	185		<i>V. arizonica</i>	Xu et al. (2008)		
			20.9	IN2R3b				Hwang et al. (2010)				
				M4F3R								
<i>Xiphinema index</i>	<i>XiR2</i>	9		VVBX-A-06	VRH8771	Cabernet Sauvignon	135	VRH8771		Rubio et al. (2020)		
<i>Xiphinema index</i>	<i>XiR3</i>	10		SC8-03	VRH8771	Cabernet Sauvignon	135	VRH8771		Rubio et al. (2020)		
<i>Xiphinema index</i>	<i>XiR4</i>	18	29.1	UDV108	VRH8771	Cabernet Sauvignon	135	VRH8771		Rubio et al. (2020)		
<b>Morphology</b>												
Berry size (berry weight)	<i>Be size</i>	18	25.9	SCC8	MTP2223-27	MTP2121-30	139		<i>V. vinifera</i>	Doligez et al. (2002)	Only one major QTL for berry size is indicated. There are several other QTLs described in the literature.	
			26.9	VMC7f2	Dominga	Autumn Seedless	118			Cabezas et al. (2006)		
					Ruby Seedless	Thompson Seedless	144			Mejia et al. (2007)		
					Italia	Big Perlon	163			Costantini et al. (2008)		
Fleshless berry	<i>Ffb</i>	18	0.9	VMC2a3	Chardonnay	Ugni Blanc Mutant	71	Ugni Blanc	<i>V. vinifera</i>	Fernandez et al. (2006)	Mutant	
GA insensitive dwarf mutant	<i>Vvgail</i>	1	4.9					Pinot Meunier		Boss & Thomas (2002)	Mutant	
Leaf hairs	<i>LH1</i>	5	0.9	Nifts5-50363	Muscat of Alexandria	Campbell Early	95	Muscat of Alexandria	<i>V. vinifera</i>	Kono et al. (2018)	reducing leaf hair density; confers DM susceptibility	
Seed development inhibitor (Seedlessness)	<i>Sdl</i>	18	25.9	SCC8	MTP2223-27	MTP2121-30	139			Doligez et al. (2002)		
			23.2	VMC6f11	Dominga	Autumn Seedless	118	Autumn Seedless		Cabezas et al. (2006)		
			26.9	VMC7f2			118					
			26.9	VMC7f2	Italia	Big Perlon	163	Big Perlon		Costantini et al. (2008)		

Trait	Symbol	Chr	Position on chr [Mb]	Associated marker	Parent 1	Parent 2	Population size	Genotype of origin	Original species of trait	Reference	Comment
Sex	Sex	2	3.7	VVMD34	Horizon	Illinois 547-1	58			Dalbó et al. (2000)	
			4.2	VVS3	Ramsey	Riparia Gloire	188			Lowe and Walker (2006)	
			4.9	VVib23	<i>V. rupestris</i>	<i>V. arizonica</i>	181			Riaz et al. (2006)	
			5.0	APT3	V3125	Börner	202			Fechter et al. (2012)	
			4.7	SNP4C_1	Moscato Bianco	<i>V. riparia</i> WR63	340			Battilana et al. (2013)	
			4.9	VVib23	Muscat Ottonel	Malvasia aromatica di	91				
			4.9	VSVV007							Picq et al. (2014)
5.0	VSVV010										
Phenology											
Berry skin color	BeCo	2	8.2	VMC5g7	MTP3140	MTP2223-27	139			Doligez et al. (2002)	
			17.5	VMC8c2							
			14.2	MybA1							Kobayashi et al. (2004)
Véraison	Ver	16	13.7	VMC1e11	Regent	Lemberger	153	Regent		Fischer et al. (2004)	For véraison (begin of ripening) several QTLs are published. This data here is incomplete.
					Italia	Big Perlon	163			Costantini et al. (2008)	
Véraison	Ver1	16	15.8	UDV052	GF.GA-47-42	Villard blanc	151	GF.GA-47-42		Zyprian et al. (2016)	
				SNP1092P11R							
Véraison	Ver2	18		SPS_P_SNP632GF	GF.GA-47-42	Villard blanc	151			Zyprian et al. (2016)	
Metabolites											
Anthocyanin 3-monoglucosides	Ufgt	16	2.3	UFGT	Regent	Lemberger	153			Fischer et al. (2004)	
Anthocyanin 3,5-diglucosides	5-GT	9	6.5		Regent	Lemberger	153	Regent		Hausmann et al. (2009)	
										Janvary et al. (2009)	
Isobutyl-methoxy pyrazine (IBMP)	VvOMT3	3	2.2	VvOMT3	(Cabernet Sauvignon x Pinot Meunier)	self pollinated	64	Cabernet Sauvignon		Dunlevy et al. (2013)	
					Cabernet Sauvignon	Gloire de Montpellier	138	Cabernet Sauvignon		Guillaumie et al. (2013)	3 significant QTLs for IBMP content
Linalool content	Lin	10		cnd41	Italia	Big Perlon	163		<i>V. vinifera</i>	Battilana et al. (2009)	
			1.2	VVih01	Moscato Bianco	<i>V. riparia</i> WR63	174				
			1.4	VrZAG67							
			1.3	VrZAG64	Muscat Ottonel	Muscat Ottonel	121		<i>V. vinifera</i>	Duchene et al. (2009)	
			1.1	VMC3d7	Gewuerztraminer	Gewuerztraminer	115		<i>V. vinifera</i>		
Monoterpene content	Mtc	5	3.8	DXS1	Italia	Big Perlon	163		<i>V. vinifera</i>	Battilana et al. (2009)	
					Moscato Bianco	<i>V. riparia</i> WR63	174				
					Muscat Ottonel	Muscat Ottonel	121		<i>V. vinifera</i>	Duchene et al. (2009)	
					Gewuerztraminer	Gewuerztraminer	115		<i>V. vinifera</i>		