Pinot blanc and Pinot gris arose as independent somatic mutations of Pinot noir

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Cultivar	Clone	Sample set	State	Berry description	Tissue	Tissue code	Location	Origin
Pinot noir	ENTAV115	core	WT		Leaf	L	IASMA, San Michele a/A (TN)	France
		core	WT	black-skinned berries	Berry skin	S	IASMA, San Michele a/A (TN)	France
		core	WT	black-skinned berries	Berry flesh	F	IASMA, San Michele a/A (TN)	France
		core	WT		Root	R	IASMA, San Michele a/A (TN)	France
Pinot noir	SMA185	core	WT		Leaf	L	IASMA, San Michele a/A (TN)	Italy
		core	WT	black-skinned berries	Berry skin	S	IASMA, San Michele a/A (TN)	Italy
		core	WT	black-skinned berries	Berry flesh	F	IASMA, San Michele a/A (TN)	Italy
		core	WT		Root	R	IASMA, San Michele a/A (TN)	Italy
Pinot noir	SMA191	core	WT		Leaf	L	IASMA, San Michele a/A (TN)	Italy
		core	WT	black-skinned berries	Berry skin	S	IASMA, San Michele a/A (TN)	Italy
		core	WT	black-skinned berries	Berry flesh	F	IASMA, San Michele a/A (TN)	Italy
		core	WT		Root	R	IASMA, San Michele a/A (TN)	Italy
Pinot noir	SMA201	core	WT		Leaf	L	IASMA, San Michele a/A (TN)	Italy
		core	WT	black-skinned berries	Berry skin	S	IASMA, San Michele a/A (TN)	Italy
		core	WT	black-skinned berries	Berry flesh	F	IASMA, San Michele a/A (TN)	Italy
		core	WT		Root	R	IASMA, San Michele a/A (TN)	Italy
Pinot gris	SMA505	core	WT		Leaf	L	IASMA, Roverè della Luna (TN)	Italy
		core	WT	grey-skinned berries	Berry skin	S	IASMA, Roverè della Luna (TN)	Italy
		core	WT	grey-skinned berries	Berry flesh	F	IASMA, Roverè della Luna (TN)	Italy
		core	WT		Root	R	IASMA, Roverè della Luna (TN)	Italy
		extended	MUT		Leaf	L	IASMA, Roverè della Luna (TN)	Italy
		extended	MUT	wholly mutated buds	Berry skin	S	IASMA, Roverè della Luna (TN)	Italy
		extended	MUT	wholly mutated buds	Berry flesh	F	IASMA, Roverè della Luna (TN)	Italy
Pinot gris	SMA514	core	WT		Leaf	L	IASMA, Roverè della Luna (TN)	Italy
		core	WT	grey-skinned berries	Berry skin	S	IASMA, Roverè della Luna (TN)	Italy
		core	WT	grey-skinned berries	Berry flesh	F	IASMA, Roverè della Luna (TN)	Italy
		core	WT		Root	R	IASMA, Roverè della Luna (TN)	Italy
		extended	MUT	wholly white-skinned berries	Berry skin	S	IASMA, Roverè della Luna (TN)	Italy
		extended	MUT	wholly white-skinned berries	Berry flesh	F	IASMA, Roverè della Luna (TN)	Italy

Pinot gris	49/207FR	extended	WT		Leaf	L	CRA-VIT, Conegliano V (TV)	Germany
		extended	WT	grey-skinned berries	Berry skin	S	CRA-VIT, Conegliano V (TV)	Germany
		extended	WT	grey-skinned berries	Berry flesh	F	CRA-VIT, Conegliano V (TV)	Germany
Pinot gris	CL52	extended	WT		Leaf	L	CRA-VIT, Conegliano V (TV)	France
		extended	WT	grey-skinned berries	Berry skin	S	CRA-VIT, Conegliano V (TV)	France
		extended	WT	grey-skinned berries	Berry flesh	F	CRA-VIT, Conegliano V (TV)	France
Pinot gris	CL53	extended	WT		Leaf	L	CRA-VIT, Conegliano V (TV)	France
		extended	WT	grey-skinned berries	Berry skin	S	CRA-VIT, Conegliano V (TV)	France
		extended	WT	grey-skinned berries	Berry flesh	F	CRA-VIT, Conegliano V (TV)	France
Pinot gris	457	extended	WT		Leaf	L	CRA-VIT, Conegliano V (TV)	France
		extended	WT	grey-skinned berries	Berry skin	S	CRA-VIT, Conegliano V (TV)	France
		extended	WT	grey-skinned berries	Berry flesh	F	CRA-VIT, Conegliano V (TV)	France
Pinot gris	FEDIT13	extended	WT		Leaf	L	CRA-VIT, Conegliano V (TV)	Italy
		extended	WT	grey-skinned berries	Berry skin	S	CRA-VIT, Conegliano V (TV)	Italy
		extended	WT	grey-skinned berries	Berry flesh	F	CRA-VIT, Conegliano V (TV)	Italy
Pinot gris	R6	extended	WT		Leaf	L	CRA-VIT, Conegliano V (TV)	Italy
		extended	WT	grey-skinned berries	Berry skin	S	CRA-VIT, Conegliano V (TV)	Italy
		extended	WT	grey-skinned berries	Berry flesh	F	CRA-VIT, Conegliano V (TV)	Italy
Pinot gris	VCR5	extended	WT		Leaf	L	CRA-VIT, Conegliano V (TV)	Italy
		extended	WT	grey-skinned berries	Berry skin	S	CRA-VIT, Conegliano V (TV)	Italy
		extended	WT	grey-skinned berries	Berry flesh	F	CRA-VIT, Conegliano V (TV)	Italy
Pinot gris	10-5	extended	WT		Leaf	L	IASMA, San Michele a/A (TN)	Hungery
		extended	WT	grey-skinned berries	Berry skin	S	IASMA, San Michele a/A (TN)	Hungery
		extended	WT	grey-skinned berries	Berry flesh	F	IASMA, San Michele a/A (TN)	Hungery
		extended	MUT	wholly white-skinned berries	Berry skin	S	IASMA, San Michele a/A (TN)	Hungery
		extended	MUT	wholly white-skinned berries	Berry flesh	F	IASMA, San Michele a/A (TN)	Hungery
Pinot gris	10-10	extended	WT		Leaf	L	IASMA, San Michele a/A (TN)	Hungery
		extended	WT	grey-skinned berries	Berry skin	S	IASMA, San Michele a/A (TN)	Hungery
		extended	WT	grey-skinned berries	Berry flesh	F	IASMA, San Michele a/A (TN)	Hungery
Pinot gris	513	extended	WT	grey-skinned berries	Berry skin	S	IASMA, Roverè della Luna (TN)	Italy
		extended	WT	grey-skinned berries	Berry flesh	F	IASMA, Roverè della Luna (TN)	Italy
		extended	MUT_wt	grey sector of sectorial chimera	Berry skin	S	IASMA, Roverè della Luna (TN)	Italy

		extended	MUT_mut	white sector of sectorial chimera	Berry skin	S	IASMA, Roverè della Luna (TN)	Italy
		extended	MUT	sectorial chimera	Berry flesh	F	IASMA, Roverè della Luna (TN)	Italy
		extended	MUT		Leaf	L	IASMA, Roverè della Luna (TN)	Italy
		extended	MUT	wholly white-skinned berry clusters	Berry skin	S	IASMA, Roverè della Luna (TN)	Italy
		extended	MUT	wholly white-skinned berry clusters	Berry flesh	F	IASMA, Roverè della Luna (TN)	Italy
Pinot gris	516	extended	WT		Leaf	L	IASMA, Roverè della Luna (TN)	Italy
		extended	WT	grey-skinned berries	Berry skin	S	IASMA, Roverè della Luna (TN)	Italy
		extended	WT	grey-skinned berries	Berry flesh	F	IASMA, Roverè della Luna (TN)	Italy
		extended	MUT_wt	grey sector of sectorial chimera	Berry skin	S	IASMA, Roverè della Luna (TN)	Italy
		extended	MUT_mut	white sector of sectorial chimera	Berry skin	S	IASMA, Roverè della Luna (TN)	Italy
		extended	MUT	sectorial chimera	Berry flesh	F	IASMA, Roverè della Luna (TN)	Italy
		extended	MUT	wholly white-skinned berries	Berry skin	S	IASMA, Roverè della Luna (TN)	Italy
		extended	MUT	wholly white-skinned berries	Berry flesh	F	IASMA, Roverè della Luna (TN)	Italy
		extended	MUT		Leaf	L	IASMA, Roverè della Luna (TN)	Italy
		extended	MUT	wholly mutated buds	Berry skin	S	IASMA, Roverè della Luna (TN)	Italy
		extended	MUT	wholly mutated buds	Berry flesh	F	IASMA, Roverè della Luna (TN)	Italy
Pinot blanc	Lb16	core	WT		Leaf	L	Laimburg, Vadena (BZ)	Italy
		core	WT	white-skinned berries	Berry skin	S	Laimburg, Vadena (BZ)	Italy
		core	WT	white-skinned berries	Berry flesh	F	Laimburg, Vadena (BZ)	Italy
		core	WT		Root	R	Laimburg, Vadena (BZ)	Italy
Pinot blanc	Lb18	core	WT		Leaf	L	Laimburg, Vadena (BZ)	Italy
		core	WT	white-skinned berries	Berry skin	S	Laimburg, Vadena (BZ)	Italy
		core	WT	white-skinned berries	Berry flesh	F	Laimburg, Vadena (BZ)	Italy
		core	WT		Root	R	Laimburg, Vadena (BZ)	Italy
Pinot blanc	72FR	extended	WT		Leaf	L	CRA-VIT, Conegliano V (TV)	Germany
		extended	WT	white-skinned berries	Berry skin	S	CRA-VIT, Conegliano V (TV)	Germany
		extended	WT	white-skinned berries	Berry flesh	F	CRA-VIT, Conegliano V (TV)	Germany
Pinot blanc	CL55	extended	WT		Leaf	L	CRA-VIT, Conegliano V (TV)	France
		extended	WT	white-skinned berries	Berry skin	S	CRA-VIT, Conegliano V (TV)	France
		extended	WT	white-skinned berries	Berry flesh	F	CRA-VIT, Conegliano V (TV)	France
Pinot blanc	CL54	extended	WT		Leaf	L	CRA-VIT, Conegliano V (TV)	France

		extended	WT	white-skinned berries	Berry skin	S	CRA-VIT, Conegliano V (TV)	France
		extended	WT	white-skinned berries	Berry flesh	F	CRA-VIT, Conegliano V (TV)	France
Pinot blanc	33W	extended	WT		Leaf	L	CRA-VIT, Conegliano V (TV)	Germany
		extended	WT	white-skinned berries	Berry skin	S	CRA-VIT, Conegliano V (TV)	Germany
		extended	WT	white-skinned berries	Berry flesh	F	CRA-VIT, Conegliano V (TV)	Germany
Pinot blanc	209D	extended	WT		Leaf	L	CRA-VIT, Conegliano V (TV)	Germany
		extended	WT	white-skinned berries	Berry skin	S	CRA-VIT, Conegliano V (TV)	Germany
		extended	WT	white-skinned berries	Berry flesh	F	CRA-VIT, Conegliano V (TV)	Germany
Pinot blanc	212D	extended	WT		Leaf	L	CRA-VIT, Conegliano V (TV)	Germany
		extended	WT	white-skinned berries	Berry skin	S	CRA-VIT, Conegliano V (TV)	Germany
		extended	WT	white-skinned berries	Berry flesh	F	CRA-VIT, Conegliano V (TV)	Germany
Pinot blanc	VCR5	extended	WT		Leaf	L	CRA-VIT, Conegliano V (TV)	Italy
		extended	WT	white-skinned berries	Berry skin	S	CRA-VIT, Conegliano V (TV)	Italy
		extended	WT	white-skinned berries	Berry flesh	F	CRA-VIT, Conegliano V (TV)	Italy
Pinot blanc	VCR7	extended	WT		Leaf	L	CRA-VIT, Conegliano V (TV)	Italy
		extended	WT	white-skinned berries	Berry skin	S	CRA-VIT, Conegliano V (TV)	Italy
		extended	WT	white-skinned berries	Berry flesh	F	CRA-VIT, Conegliano V (TV)	Italy
Pinot meunier	SMA814	core	WT		Leaf	L	IASMA, San Michele a/A (TN)	Italy
		core	WT	black-skinned berries	Berry skin	S	IASMA, San Michele a/A (TN)	Italy
		core	WT	black-skinned berries	Berry flesh	F	IASMA, San Michele a/A (TN)	Italy
		core	WT		Root	R	IASMA, San Michele a/A (TN)	Italy
Pinot meunier	SMA829	core	WT		Leaf	L	IASMA, San Michele a/A (TN)	Italy
		core	WT	black-skinned berries	Berry skin	S	IASMA, San Michele a/A (TN)	Italy
		core	WT	black-skinned berries	Berry flesh	F	IASMA, San Michele a/A (TN)	Italy
		core	WT		Root	R	IASMA, San Michele a/A (TN)	Italy

Table S1
List of the studied Pinots.

SSR locus	Reference	Ta (°C)	Taq-polymerase	Use
VVS2	Thomas et al. 1994 (in This et al. 2004)	52	TaqGold, Life Tech	true-to-type confirmation
VVMD5	Bowers et al. 1996 (in This et al. 2004)	50	BioTaq, Bioline	true-to-type confirmation
VVMD7	Bowers et al. 1996 (in This et al. 2004)	52	TaqGold, Life Tech	true-to-type confirmation
VVMD27	Bowers et al. 1996 (in This et al. 2004)	52	TaqGold, Life Tech	true-to-type confirmation
VrZAG62	Sefc et al. 1999 (in This et al. 2004)	52	HotStart Taq, Qiagen	true-to-type confirmation
VrZAG79	Sefc et al. 1999 (in This et al. 2004)	52	HotStart Taq, Qiagen	true-to-type confirmation
VVMD25	Bowers et al. 1999	54	HotStart Taq, Qiagen	true-to-type confirmation
VVMD28	Bowers et al. 1999	54	HotStart Taq, Qiagen	true-to-type confirmation
VVMD32	Bowers et al. 1999	54	HotStart Taq, Qiagen	true-to-type confirmation
VMC5g6.1	Agrogene, France (in Riaz et al. 2002)	55	HotStart Taq, Qiagen	triallelism analysis
VMC8f10	Agrogene, France (in Riaz et al. 2002)	55	HotStart Taq, Qiagen	triallelism analysis
VMCNg1b9	Agrogene, France (in Riaz et al. 2002)	55	HotStart Taq, Qiagen	triallelism analysis
VMC1e8	Agrogene, France (in Riaz et al. 2002)	55	HotStart Taq, Qiagen	triallelism analysis
VMC3b12	Agrogene, France (in Riaz et al. 2002)	55	HotStart Taq, Qiagen	triallelism analysis
VMC3c9	Agrogene, France (in Riaz et al. 2002)	55	HotStart Taq, Qiagen	triallelism analysis
VMC6b11	Arroyo-Garcia and Martinez-Zapater (at NCBI)	55	HotStart Taq, Qiagen	deletion delimitation
SC8_0146_010	Adam-Blondon A-F, personal communication	55	HotStart Taq, Qiagen	deletion delimitation
SC8_0146_026	Adam-Blondon A-F, personal communication	55	HotStart Taq, Qiagen	deletion delimitation
VVNTM1	Fournier-Level et al. 2009	55	HotStart Taq, Qiagen	deletion delimitation
VVNTM2	Fournier-Level et al. 2009	55	HotStart Taq, Qiagen	deletion delimitation
VVNTM3	Fournier-Level et al. 2009	55	HotStart Taq, Qiagen	deletion delimitation
VVNTM4	Fournier-Level et al. 2009	55	HotStart Taq, Qiagen	deletion delimitation
VVNTM5	Fournier-Level et al. 2009	55	HotStart Taq, Qiagen	deletion delimitation
VVNTM6	Fournier-Level et al. 2009	55	HotStart Taq, Qiagen	deletion delimitation
VVIU20	Merdinoglu et al. 2005	55	HotStart Taq, Qiagen	deletion delimitation
VMC7g3	Pellerone et al. 2001	55	HotStart Taq, Qiagen	deletion delimitation

Table S2
Primer information of the used microsatellite markers.

Locus	Primer_F sequence information	Primer_R sequence information	Ta
ProMybA1_Gret+	TCCTCTCTCTAACCATGGCTAA	GAACCTTCTTTTTGAAGTGGTGACT	55
ProMybA1_Gret-	GACGTAAAAAAATGGTTGCACGTG	GAACCTTCTTTTTGAAGTGGTGACT	58
3'UTRMybA1	TTCCAGGGAGGACTGCTAATGATG	TTGGCACCATAATTTTCCATTTTC	57
ProMybA2	GTGAGGAGAGTACATTGTAGGA	GAACCTTCTTTTTCAGGTGGTGACC	55
3'UTRMybA2	TTCCAGGGAGGACTGCTAATGATG	GGTGGTGCAATGACCTATAG	56
ProMybA3	AACCCGGTCATTGAATTGACAATAG	GAACCTTCTTTTTCAGGTGGTGACC	63
3'UTRMybA3	CCTTGATTGCGGGTAGGCTTC	GGGCCCTCAAAATGGAGAAGT	63
MybA4	TGTCGCAAGGAACATGGTAA	CATTGCTTGAGTTTGGATGC	56
SNP0060	TTGGCCATTTTGTCATCTTTC	CGATTGAATTGGGCAAGTTT	57
SNP4045	TGCCATGTGTTTGCCATTAT	AGTCAACACCCACAACCACA	57
SNP4071	AGCATCTTCCAAATGTCTTT	TTAATGACCCTAACCATCCA	57
SNP4165	ATATGACCTGGCTGCCAAAG	CCTTCTGTCTTGACACTTGTGC	57
SNP6003	TTTTGGAATTAAGAATCCAATCA	ATTTGGCCTTGAGTCGTGTC	56
SNP6097	GGCCCATCAACAAAATCCTA	GCAGTGAAGAGCAACACCTG	57
SNP6139	TGTGGAAGATGATGGCTTAAAA	ACCCATTCCCAAAAGAAAGG	57
SNP6166	GAATTTGGCAATGTTATGGT	AACAGACAAATCATTGATGGA	57
SNP7002	AATGGACGATGCAATGTTGA	ACTCTGCAAGTGCTTTTTGC	56
SNP7054	GGAAAAATGGAATGGAGGTA	GGTAGACAAGAGGTCCCAGA	57
SNP7234	CAATTCTCATCCAAACCAAC	AAGTCTCCACAAAACATGAGA	57
SNP7253	CCTCAACCAGGAATTTGTCTT	CCTCTTTGGAGGGAAAAATCA	56
SNP8066	GCCCTTTAGGGTCTTTGGAA	CACAAACTGTTGATTGTCTTGGA	57
SV02	CCCAATTAATCCGTGAATGG	TACAAGCCCTGGTGTGTCAA	58
SV06	CGCCTTGCTCTCTACACTCC	AGGCACTTGGGTGATAATCG	58
SV08	AGGAGGAGGAGGAAATGAGG	TGGCTATGTAACTTAGTGCTTCTCA	58
SV09	AAGCCTTGGCAGTCTTTCTG	GGAAGGATGAAGAGGTGCAA	58
SV10	TGGAGTACATGGGCAATCAA	AGCTGCTTCACCACCAACTT	58
SV12	TAGTGGGTGGGACAGGCTAC	GGGAAGCCATGAAAGAAAAG	58

Table S3
Primer information of the studied regions distributed along the chromosome 2.

a.										
Cultivar	**Clones ***	**VVS2**	**VVMD5**	**VVMD7**	**VVMD27**	**VrZAG62**	**VrZAG79**	**VVMD25**	**VVMD28**	**VVMD32**
Pinot noir	all									
		137	228	239	182	187	239	241	217	242
		151	238	243	186	193	245	251	235	274
Pinot gris	all									
		137	228	239	182	187	239	241	217	242
		151	238	243	186	193	245	251	235	274
Pinot blanc	all									
		137	228	239	182	187	239	241	217	242
		151	238	243	186	193	245	251	235	274
Pinot meunier	all	130								
		137	228	239	182	187	239	241	217	242
		151	238	243	186	193	245	251	235	274
b.										
Cultivar	**Clones**	**VMC 5g6.1**	**VMC 8f10**	**VMC NG1b9**	**VMC 1e8**	**VMC 3b12**	**VMC 3c9**			
Pinot noir	all									
		114	197	157	227	109	260			
		155	199	157	231	121	266			
Pinot gris	all									
		114	197	157	227	109	260			
		155	199	157	231	121	266			
Pinot blanc	all									
		114	197	157	227	109	260			
		155	199	157	231	121	266			
Pinot meunier	all									
		114	197	157	227	109	260			
		155	199	157	231	121	266			

***** the results refer to the L1+L2 genetic make-up that is always identical to the L2 profile, except for the Pinot meunier clones at VVS2 locus (L2: 130-137 bp)

Table S4
Genetic profile of the Pinots core set at genome level.

Cv	Clone	Tissue code	Layer	SV10		SV12				SNP4045			
				coding		coding				non-coding			
PN	ENTAV115	L, S	L1+L2	R	313	R	180	W	411	**R**	206	Y	252
		F, R	L2	R	313	R	180	W	411	**R**	206	Y	252
PN	SMA185	L, S	L1+L2	R	313	R	180	W	411	**R**	206	Y	252
		F, R	L2	R	313	R	180	W	411	**R**	206	Y	252
PN	SMA191	L, S	L1+L2	R	313	R	180	W	411	**R**	206	Y	252
		F, R	L2	R	313	R	180	W	411	**R**	206	Y	252
PN	SMA201	L, S	L1+L2	R	313	R	180	W	411	**R**	206	Y	252
		F, R	L2	R	313	R	180	W	411	**R**	206	Y	252
PG	SMA505	L, S	L1+L2	R	313	R	180	W	411	**R**	206	Y	252
		F, R	L2	A	313	A	180	A	411	**G**	206	C	252
PG	SMA514	L, S	L1+L2	R	313	R	180	W	411	**R**	206	Y	252
		F, R	L2	A	313	A	180	A	411	**G**	206	C	252
PB	Lb16	L, S	L1+L2	R	313	R	180	W	411	**R**	206	Y	252
		F, R	L2	R	313	R	180	W	411	**R**	206	Y	252
PB	Lb18	L, S	L1+L2	R	313	R	180	W	411	**R**	206	Y	252
		F, R	L2	R	313	R	180	W	411	**R**	206	Y	252
PM	SMA814	L, S	L1+L2	R	313	R	180	W	411	**R**	206	Y	252
		F, R	L2	R	313	R	180	W	411	**R**	206	Y	252
PM	SMA829	L, S	L1+L2	R	313	R	180	W	411	**R**	206	Y	252
		F, R	L2	R	313	R	180	W	411	**R**	206	Y	252

Cv	Clone	Tissue code	Layer	SNP4045		VVNTM1		VVNTM2		VvMybA2			
				non-coding		microsatellite		microsatellite		promoter			
PN	ENTAV115	L, S	L1+L2	R	319	162	168	379	388	R	77	W	97
		F, R	L2	R	319	162	168	379	388	R	77	W	97
PN	SMA185	L, S	L1+L2	R	319	162	168	379	388	R	77	W	97
		F, R	L2	R	319	162	168	379	388	R	77	W	97
PN	SMA191	L, S	L1+L2	R	319	162	168	379	388	R	77	W	97
		F, R	L2	R	319	162	168	379	388	R	77	W	97
PN	SMA201	L, S	L1+L2	R	319	162	168	379	388	R	77	W	97
		F, R	L2	R	319	162	168	379	388	R	77	W	97
PG	SMA505	L, S	L1+L2	R	319	162	168	162	388	R	77	W	97
		F, R	L2	A	319	-	168	-	388	A	77	A	97
PG	SMA514	L, S	L1+L2	R	319	162	168	162	388	R	77	W	97
		F, R	L2	A	319	-	168	-	388	A	77	A	97
PB	Lb16	L, S	L1+L2	R	319	-	168	-	388	A	77	A	97
		F, R	L2	R	319	-	168	-	388	A	77	A	97
PB	Lb18	L, S	L1+L2	R	319	-	168	-	388	A	77	A	97
		F, R	L2	R	319	-	168	-	388	A	77	A	97
PM	SMA814	L, S	L1+L2	R	319	162	168	379	388	R	77	W	97
		F, R	L2	R	319	162	168	379	388	R	77	W	97
PM	SMA829	L, S	L1+L2	R	319	162	168	379	388	R	77	W	97
		F, R	L2	R	319	162	168	379	388	R	77	W	97

Cv	Clone	Tissue code	Layer	VvMybA2 promoter									
PN	ENTAV115	L, S	L1+L2	S	100	S	103	R	112	K	131	R	144
		F, R	L2	S	100	S	103	R	112	K	131	R	144
PN	SMA185	L, S	L1+L2	S	100	S	103	R	112	K	131	R	144
		F, R	L2	S	100	S	103	R	112	K	131	R	144
PN	SMA191	L, S	L1+L2	S	100	S	103	R	112	K	131	R	144
		F, R	L2	S	100	S	103	R	112	K	131	R	144
PN	SMA201	L, S	L1+L2	S	100	S	103	R	112	K	131	R	144
		F, R	L2	S	100	S	103	R	112	K	131	R	144
PG	SMA505	L, S	L1+L2	S	100	S	103	R	112	K	131	R	144
		F, R	L2	C	100	C	103	A	112	T	131	G	144
PG	SMA514	L, S	L1+L2	S	100	S	103	R	112	K	131	R	144
		F, R	L2	C	100	C	103	A	112	T	131	G	144
PB	Lb16	L, S	L1+L2	C	100	C	103	A	112	T	131	G	144
		F, R	L2	C	100	C	103	A	112	T	131	G	144
PB	Lb18	L, S	L1+L2	C	100	C	103	A	112	T	131	G	144
		F, R	L2	C	100	C	103	A	112	T	131	G	144
PM	SMA814	L, S	L1+L2	S	100	S	103	R	112	K	131	R	144
		F, R	L2	S	100	S	103	R	112	K	131	R	144
PM	SMA829	L, S	L1+L2	S	100	S	103	R	112	K	131	R	144
		F, R	L2	S	100	S	103	R	112	K	131	R	144

Cv	Clone	Tissue code	Layer	VvMybA2								VvMybA1	
				promoter								promoter	
PN	ENTAV115	L, S	L1+L2	W	384	W	408	R	431	S	456	Gret	non-Gret
		F, R	L2	W	384	W	408	R	431	S	456	Gret	non-Gret
PN	SMA185	L, S	L1+L2	W	384	W	408	R	431	S	456	Gret	non-Gret
		F, R	L2	W	384	W	408	R	431	S	456	Gret	non-Gret
PN	SMA191	L, S	L1+L2	W	384	W	408	R	431	S	456	Gret	non-Gret
		F, R	L2	W	384	W	408	R	431	S	456	Gret	non-Gret
PN	SMA201	L, S	L1+L2	W	384	W	408	R	431	S	456	Gret	non-Gret
		F, R	L2	W	384	W	408	R	431	S	456	Gret	non-Gret
PG	SMA505	L, S	L1+L2	W	384	W	408	R	431	S	456	Gret	non-Gret
		F, R	L2	A	384	T	408	G	431	C	456	Gret	-
PG	SMA514	L, S	L1+L2	W	384	W	408	R	431	S	456	Gret	non-Gret
		F, R	L2	A	384	T	408	G	431	C	456	Gret	-
PB	Lb16	L, S	L1+L2	A	384	T	408	G	431	C	456	Gret	-
		F, R	L2	A	384	T	408	G	431	C	456	Gret	-
PB	Lb18	L, S	L1+L2	A	384	T	408	G	431	C	456	Gret	-
		F, R	L2	A	384	T	408	G	431	C	456	Gret	-
PM	SMA814	L, S	L1+L2	W	384	W	408	R	431	S	456	Gret	non-Gret
		F, R	L2	W	384	W	408	R	431	S	456	Gret	non-Gret
PM	SMA829	L, S	L1+L2	W	384	W	408	R	431	S	456	Gret	non-Gret
		F, R	L2	W	384	W	408	R	431	S	456	Gret	non-Gret

Cv	Clone	Tissue code	Layer	VvMybA1								VvMybA1	
				exon								3'UTR	
PN	ENTAV115	L, S	L1+L2	K	161	K	176	S	187	M	235	Y	481
		F, R	L2	K	161	K	176	S	187	M	235	Y	481
PN	SMA185	L, S	L1+L2	K	161	K	176	S	187	M	235	Y	481
		F, R	L2	K	161	K	176	S	187	M	235	Y	481
PN	SMA191	L, S	L1+L2	K	161	K	176	S	187	M	235	Y	481
		F, R	L2	K	161	K	176	S	187	M	235	Y	481
PN	SMA201	L, S	L1+L2	K	161	K	176	S	187	M	235	Y	481
		F, R	L2	K	161	K	176	S	187	M	235	Y	481
PG	SMA505	L, S	L1+L2	K	161	K	176	S	187	M	235	Y	481
		F, R	L2	G	161	T	176	C	187	A	235	T	481
PG	SMA514	L, S	L1+L2	K	161	K	176	S	187	M	235	Y	481
		F, R	L2	G	161	T	176	C	187	A	235	T	481
PB	Lb16	L, S	L1+L2	G	161	T	176	C	187	A	235	T	481
		F, R	L2	G	161	T	176	C	187	A	235	T	481
PB	Lb18	L, S	L1+L2	G	161	T	176	C	187	A	235	T	481
		F, R	L2	G	161	T	176	C	187	A	235	T	481
PM	SMA814	L, S	L1+L2	K	161	K	176	S	187	M	235	Y	481
		F, R	L2	K	161	K	176	S	187	M	235	Y	481
PM	SMA829	L, S	L1+L2	K	161	K	176	S	187	M	235	Y	481
		F, R	L2	K	161	K	176	S	187	M	235	Y	481

Cv	Clone	Tissue code	Layer	VvMybA1		VVNTM3		SNP7234		VVNTM5		SNP7253	
				3'UTR		microsatellite		non-coding		microsatellite		non-coding	
PN	ENTAV115	L, S	L1+L2	K	571	272	296	**R**	103	288	300	M	74
		F, R	L2	K	571	272	296	**R**	103	288	300	M	74
PN	SMA185	L, S	L1+L2	K	571	272	296	**R**	103	288	300	M	74
		F, R	L2	K	571	272	296	**R**	103	288	300	M	74
PN	SMA191	L, S	L1+L2	K	571	272	296	**R**	103	288	300	M	74
		F, R	L2	K	571	272	296	**R**	103	288	300	M	74
PN	SMA201	L, S	L1+L2	K	571	272	296	**R**	103	288	300	M	74
		F, R	L2	K	571	272	296	**R**	103	288	300	M	74
PG	SMA505	L, S	L1+L2	K	571	272	296	**R**	103	288	300	M	74
		F, R	L2	G	571	272	-	**G**	103	288	-	C	74
PG	SMA514	L, S	L1+L2	K	571	272	296	**R**	103	288	300	M	74
		F, R	L2	G	571	272	-	**G**	103	288	-	C	74
PB	Lb16	L, S	L1+L2	G	571	272	296	**R**	103	288	300	M	74
		F, R	L2	G	571	272	296	**R**	103	288	300	M	74
PB	Lb18	L, S	L1+L2	G	571	272	296	**R**	103	288	300	M	74
		F, R	L2	G	571	272	296	**R**	103	288	300	M	74
PM	SMA814	L, S	L1+L2	K	571	272	296	**R**	103	288	300	M	74
		F, R	L2	K	571	272	296	**R**	103	288	300	M	74
PM	SMA829	L, S	L1+L2	K	571	272	296	**R**	103	288	300	M	74
		F, R	L2	K	571	272	296	**R**	103	288	300	M	74

Cv	Clone	Tissue code	Layer	SNP7253						SNP0060			
				non-coding						non-coding			
PN	ENTAV115	L, S	L1+L2	Y	159	R	194	K	264	Y	243	R	244
		F, R	L2	Y	159	R	194	K	264	Y	243	R	244
PN	SMA185	L, S	L1+L2	Y	159	R	194	K	264	Y	243	R	244
		F, R	L2	Y	159	R	194	K	264	Y	243	R	244
PN	SMA191	L, S	L1+L2	Y	159	R	194	K	264	Y	243	R	244
		F, R	L2	Y	159	R	194	K	264	Y	243	R	244
PN	SMA201	L, S	L1+L2	Y	159	R	194	K	264	Y	243	R	244
		F, R	L2	Y	159	R	194	K	264	Y	243	R	244
PG	SMA505	L, S	L1+L2	Y	159	R	194	K	264	Y	243	R	244
		F, R	L2	C	159	G	194	T	264	C	243	A	244
PG	SMA514	L, S	L1+L2	Y	159	R	194	K	264	Y	243	R	244
		F, R	L2	C	159	G	194	T	264	C	243	A	244
PB	Lb16	L, S	L1+L2	Y	159	R	194	K	264	Y	243	R	244
		F, R	L2	Y	159	R	194	K	264	Y	243	R	244
PB	Lb18	L, S	L1+L2	Y	159	R	194	K	264	Y	243	R	244
		F, R	L2	Y	159	R	194	K	264	Y	243	R	244
PM	SMA814	L, S	L1+L2	Y	159	R	194	K	264	Y	243	R	244
		F, R	L2	Y	159	R	194	K	264	Y	243	R	244
PM	SMA829	L, S	L1+L2	Y	159	R	194	K	264	Y	243	R	244
		F, R	L2	Y	159	R	194	K	264	Y	243	R	244

Cv	Clone	Tissue code	Layer	SNP8066		SNP4071		SNP7054					
				non-coding		non-coding		non-coding					
PN	ENTAV115	L, S	L1+L2	S	4	**R**	113	K	82	R	102	Y	116
		F, R	L2	S	4	**R**	113	K	82	R	102	Y	116
PN	SMA185	L, S	L1+L2	S	4	**R**	113	K	82	R	102	Y	116
		F, R	L2	S	4	**R**	113	K	82	R	102	Y	116
PN	SMA191	L, S	L1+L2	S	4	**R**	113	K	82	R	102	Y	116
		F, R	L2	S	4	**R**	113	K	82	R	102	Y	116
PN	SMA201	L, S	L1+L2	S	4	**R**	113	K	82	R	102	Y	116
		F, R	L2	S	4	**R**	113	K	82	R	102	Y	116
PG	SMA505	L, S	L1+L2	S	4	**R**	113	K	82	R	102	Y	116
		F, R	L2	G	4	**A**	113	G	82	G	102	C	116
PG	SMA514	L, S	L1+L2	S	4	**R**	113	K	82	R	102	Y	116
		F, R	L2	G	4	**A**	113	G	82	G	102	C	116
PB	Lb16	L, S	L1+L2	S	4	**R**	113	K	82	R	102	Y	116
		F, R	L2	S	4	**R**	113	K	82	R	102	Y	116
PB	Lb18	L, S	L1+L2	S	4	**R**	113	K	82	R	102	Y	116
		F, R	L2	S	4	**R**	113	K	82	R	102	Y	116
PM	SMA814	L, S	L1+L2	S	4	**R**	113	K	82	R	102	Y	116
		F, R	L2	S	4	**R**	113	K	82	R	102	Y	116
PM	SMA829	L, S	L1+L2	S	4	**R**	113	K	82	R	102	Y	116
		F, R	L2	S	4	**R**	113	K	82	R	102	Y	116

Cv	Clone	Tissue code	Layer	SNP7054									
				non-coding									
PN	ENTAV115	L, S	L1+L2	M	139	W	143	**W**	164	Y	284	Y	325
		F, R	L2	M	139	W	143	**W**	164	Y	284	Y	325
PN	SMA185	L, S	L1+L2	M	139	W	143	**W**	164	Y	284	Y	325
		F, R	L2	M	139	W	143	**W**	164	Y	284	Y	325
PN	SMA191	L, S	L1+L2	M	139	W	143	**W**	164	Y	284	Y	325
		F, R	L2	M	139	W	143	**W**	164	Y	284	Y	325
PN	SMA201	L, S	L1+L2	M	139	W	143	**W**	164	Y	284	Y	325
		F, R	L2	M	139	W	143	**W**	164	Y	284	Y	325
PG	SMA505	L, S	L1+L2	M	139	W	143	**W**	164	Y	284	Y	325
		F, R	L2	A	139	A	143	**T**	164	T	284	T	325
PG	SMA514	L, S	L1+L2	M	139	W	143	**W**	164	Y	284	Y	325
		F, R	L2	A	139	A	143	**T**	164	T	284	T	325
PB	Lb16	L, S	L1+L2	M	139	W	143	**W**	164	Y	284	Y	325
		F, R	L2	M	139	W	143	**W**	164	Y	284	Y	325
PB	Lb18	L, S	L1+L2	M	139	W	143	**W**	164	Y	284	Y	325
		F, R	L2	M	139	W	143	**W**	164	Y	284	Y	325
PM	SMA814	L, S	L1+L2	M	139	W	143	**W**	164	Y	284	Y	325
		F, R	L2	M	139	W	143	**W**	164	Y	284	Y	325
PM	SMA829	L, S	L1+L2	M	139	W	143	**W**	164	Y	284	Y	325
		F, R	L2	M	139	W	143	**W**	164	Y	284	Y	325

Cv	Clone	Tissue code	Layer	SNP7054						VVIU20		SNP7002	
				non-coding						microsatellite		non-coding	
PN	ENTAV115	L, S	L1+L2	Y	366	R	387	Y	419	361	383	R	144
		F, R	L2	Y	366	R	387	Y	419	361	383	R	144
PN	SMA185	L, S	L1+L2	Y	366	R	387	Y	419	361	383	R	144
		F, R	L2	Y	366	R	387	Y	419	361	383	R	144
PN	SMA191	L, S	L1+L2	Y	366	R	387	Y	419	361	383	R	144
		F, R	L2	Y	366	R	387	Y	419	361	383	R	144
PN	SMA201	L, S	L1+L2	Y	366	R	387	Y	419	361	383	R	144
		F, R	L2	Y	366	R	387	Y	419	361	383	R	144
PG	SMA505	L, S	L1+L2	Y	366	R	387	Y	419	361	383	R	144
		F, R	L2	C	366	A	387	T	419	361	-	G	144
PG	SMA514	L, S	L1+L2	Y	366	R	387	Y	419	361	383	R	144
		F, R	L2	C	366	A	387	T	419	361	-	G	144
PB	Lb16	L, S	L1+L2	Y	366	R	387	Y	419	361	383	R	144
		F, R	L2	Y	366	R	387	Y	419	361	383	R	144
PB	Lb18	L, S	L1+L2	Y	366	R	387	Y	419	361	383	R	144
		F, R	L2	Y	366	R	387	Y	419	361	383	R	144
PM	SMA814	L, S	L1+L2	Y	366	R	387	Y	419	361	383	R	144
		F, R	L2	Y	366	R	387	Y	419	361	383	R	144
PM	SMA829	L, S	L1+L2	Y	366	R	387	Y	419	361	383	R	144
		F, R	L2	Y	366	R	387	Y	419	361	383	R	144

Cv	Clone	Tissue code	Layer	SNP6166								VMC7G3	
				non-coding								microsatellite	
PN	ENTAV115	L, S	L1+L2	Y	144	Y	187	M	202	**K**	302	115	131
		F, R	L2	Y	144	Y	187	M	202	**K**	302	115	131
PN	SMA185	L, S	L1+L2	Y	144	Y	187	M	202	**K**	302	115	131
		F, R	L2	Y	144	Y	187	M	202	**K**	302	115	131
PN	SMA191	L, S	L1+L2	Y	144	Y	187	M	202	**K**	302	115	131
		F, R	L2	Y	144	Y	187	M	202	**K**	302	115	131
PN	SMA201	L, S	L1+L2	Y	144	Y	187	M	202	**K**	302	115	131
		F, R	L2	Y	144	Y	187	M	202	**K**	302	115	131
PG	SMA505	L, S	L1+L2	Y	144	Y	187	M	202	**K**	302	115	131
		F, R	L2	T	144	C	187	A	202	**T**	302	115	-
PG	SMA514	L, S	L1+L2	Y	144	Y	187	M	202	**K**	302	115	131
		F, R	L2	T	144	C	187	A	202	**T**	302	115	-
PB	Lb16	L, S	L1+L2	Y	144	Y	187	M	202	**K**	302	115	131
		F, R	L2	Y	144	Y	187	M	202	**K**	302	115	131
PB	Lb18	L, S	L1+L2	Y	144	Y	187	M	202	**K**	302	115	131
		F, R	L2	Y	144	Y	187	M	202	**K**	302	115	131
PM	SMA814	L, S	L1+L2	Y	144	Y	187	M	202	**K**	302	115	131
		F, R	L2	Y	144	Y	187	M	202	**K**	302	115	131
PM	SMA829	L, S	L1+L2	Y	144	Y	187	M	202	**K**	302	115	131
		F, R	L2	Y	144	Y	187	M	202	**K**	302	115	131

Table S5
Genetic make-up of the Pinots core set at the berry color locus.

Locus	Type	12X start	Chr	State of PN and PM L1+L2	State of PB L1+L2	State of PG L1	State of PG L2
Chr2_start		0	2				
SNP6139	non-coding	781.621	2	heterozygous	heterozygous	heterozygous	heterozygous
SNP4165	non-coding	5.873.288	2	heterozygous	heterozygous	heterozygous	heterozygous
VMC6B11	microsatellite	8.128.443	2	heterozygous	heterozygous	heterozygous	heterozygous
SNP6003	non-coding	8.310.926	2	heterozygous	heterozygous	heterozygous	heterozygous
SNP6097	non-coding	9.987.080	2	heterozygous	heterozygous	heterozygous	heterozygous
SC8_0146_010	microsatellite	12.674.498	2	heterozygous	heterozygous	heterozygous	heterozygous
SC8_0146_026	microsatellite	12.969.988	2	not polymorphic	not polymorphic	not polymorphic	not polymorphic
SV02	gene	13.004.264	2	heterozygous	heterozygous	heterozygous	heterozygous
SV06	gene	13.419.774	2	heterozygous	heterozygous	heterozygous	heterozygous
SV08	gene	13.761.815	2	not polymorphic	not polymorphic	not polymorphic	not polymorphic
SV09	gene	13.772.327	2	heterozygous	heterozygous	heterozygous	heterozygous
SV10	gene	13.919.740	2	heterozygous	heterozygous	heterozygous	homozygous-like
SV12	gene	14.027.837	2	heterozygous	heterozygous	heterozygous	homozygous-like
SNP4045	non-coding	14.068.644	2	heterozygous	heterozygous	heterozygous	homozygous-like
VVNTM1	microsatellite	14.149.213	2	heterozygous	homozygous-like	heterozygous	homozygous-like
VVNTM2	microsatellite	14.150.879	2	heterozygous	homozygous-like	heterozygous	homozygous-like
Myb A4 cds	gene	14.162.753	2	not polymorphic	not polymorphic	not polymorphic	not polymorphic
Myb A2 3'UTR	gene	14.179.489	2	not polymorphic	not polymorphic	not polymorphic	not polymorphic
Myb A2 pro-cds	gene	14.180.663	2	heterozygous	homozygous-like	heterozygous	homozygous-like
Myb A1 3'UTR	gene	14.239.727	2	heterozygous	homozygous-like	heterozygous	homozygous-like
Gret - Myb A1 pro-cds	gene	14.249.728	2	present	absent	present	absent
Gret + Myb A1 pro-cds	gene	14.249.728	2	present	present	present	present
VVNTM3	microsatellite	14.287.961	2	heterozygous	heterozygous	heterozygous	homozygous-like
SNP7234	non-coding	14.292.277	2	heterozygous	heterozygous	heterozygous	homozygous-like
VVNTM5	microsatellite	14.325.347	2	heterozygous	heterozygous	heterozygous	homozygous-like
VVNTM6	microsatellite	14.330.246	2	not polymorphic	not polymorphic	not polymorphic	not polymorphic
VVNTM4	microsatellite	14.384.009	2	not polymorphic	not polymorphic	not polymorphic	not polymorphic
SNP7253	non-coding	14.567.410	2	heterozygous	heterozygous	heterozygous	homozygous-like

SNP0060	non-coding	14.854.622	2	heterozygous	heterozygous	heterozygous	homozygous-like
SNP8066	non-coding	15.169.091	2	heterozygous	heterozygous	heterozygous	homozygous-like
SNP4071	non-coding	15.776.237	2	heterozygous	heterozygous	heterozygous	homozygous-like
SNP7054	non-coding	16.287.292	2	heterozygous	heterozygous	heterozygous	homozygous-like
VVIU20	microsatellite	16.538.777	2	heterozygous	heterozygous	heterozygous	homozygous-like
SNP7002	non-coding	16.653.403	2	heterozygous	heterozygous	heterozygous	homozygous-like
SNP6166	non-coding	17.097.606	2	heterozygous	heterozygous	heterozygous	homozygous-like
VMC7G3	microsatellite	18.270.821	2	heterozygous	heterozygous	heterozygous	homozygous-like
Chr2_end		18.779.844	2				

Table S6
Genotypic state of the Pinots core set at all the analyzed loci along the chromosome 2.