





























Prime-name-STRUCTURE	Code-Country	POP1	POP2
Morellone	ITA	0.967	0.033
Furmint	HUN	0.967	0.033
Rufete	PRT	0.966	0.034
Touriga-nacional	PRT	0.966	0.034
Agiorgitiko	GRC	0.965	0.035
Invernenga	ITA	0.965	0.035
Mauzac-blanc	FRA	0.961	0.039
Peu-garsa	ESP	0.961	0.039
Carignan-noir	FRA	0.960	0.040
Garrido-fino	ESP	0.960	0.040
Moro-negre	ESP	0.958	0.042
Parraleta	ESP	0.958	0.042
Tinta-barroca	PRT	0.956	0.044
Zalema	ESP	0.956	0.044
Malvasia-istriana	HRV	0.955	0.045
Pascal-blanc	FRA	0.955	0.045
Dabouki	ISR	0.945	0.055
Morenillo	ESP	0.939	0.061
Tenerone	ITA	0.937	0.063
Parellada	ESP	0.935	0.065
Rojal-tinta	ESP	0.934	0.066
Chasselas-blanc	CHE	0.929	0.071
Malvasia-nera-di-Brindi	ITA	0.909	0.091
Cep-Maria	ESP	0.909	0.091
Malvasia-bianca-Candia	ITA	0.903	0.097
Lambrusco-marani	ITA	0.898	0.102
Coda-Volpe-bianca	ITA	0.870	0.130
Chenin-blanc	FRA	0.859	0.141
Syrah	FRA	0.824	0.176
Castelao	PRT	0.822	0.178
Pampolat-girat	UNKNOWN	0.811	0.189
Cinsaut	FRA	0.808	0.192
Vitouska-garganija	SVN	0.802	0.198
Ophtalmo	CYP	0.800	0.200
Cornichon-blanc	ITA	0.798	0.202
Listan-prieto	ESP	0.798	0.202
Albana	ITA	0.759	0.241
Unknown-8	UNKNOWN	0.737	0.263
Pedro-Ximenes	ESP	0.733	0.267
Graciano	ESP	0.729	0.271
Trebbiano-toscano	ITA	0.711	0.289
Canari-noir	FRA	0.686	0.314
Tinto-cao	PRT	0.665	0.335
Sultanina	TUR	0.652	0.348
Borracal	PRT	0.635	0.365
Verdelho-branco	PRT	0.613	0.387
Cayetana-blanca	ESP	0.579	0.421
Trousseau-noir	FRA	0.539	0.461

Prime-name-STRUCTURE	Code-Country	POP1	POP2
Giro-ros	ESP	0.006	0.994
Molinera	ESP	0.006	0.994
Valent-blanc	ESP	0.006	0.994
Unknown-6IB	UNKNOWN	0.006	0.994
Ginebra	ESP	0.007	0.993
Huevo-gallo	ESP-IC	0.007	0.993
Manses-tibbus	ESP	0.008	0.992
UVA-AÑO	ESP-LNZ	0.008	0.992
Verijadiego-negro	ESP-IC	0.008	0.992
Unknown-3	UNKNOWN	0.008	0.992
Beba	ESP	0.010	0.990
Callet-cas-Concos-negro	ESP	0.010	0.990
Manto-negro	ESP	0.010	0.990
Sumoll	ESP	0.010	0.990
Bienmesabe-tinto	ESP-IC	0.010	0.990
Aleatico	ITA	0.011	0.989
Miguel-Arco-Aragon	ESP	0.011	0.989
Pensal-blanca	ESP	0.011	0.989
Planta-fina	ESP	0.011	0.989
Argamusa	ESP	0.012	0.988
Gafarro	ESP	0.012	0.988
Greco-bianco-Tufo	ITA	0.013	0.987
Barbarossa	ITA	0.015	0.985
Callet	ESP	0.015	0.985
Vinyater	ESP	0.016	0.984
BLANCA-GRAB-CAB	ESP-LNZ	0.016	0.984
Quebratinajas-tinto	ESP	0.017	0.983
Palomino-fino	ESP	0.018	0.982
Albillo-M-Lentiscal	ESP-IC	0.018	0.982
LEMES-CABEZO	ESP-LNZ	0.018	0.982
Unknown-7	UNKNOWN	0.018	0.982
Afus-ali	LBN	0.019	0.981
Vallera	ESP-IC	0.019	0.981
Mavrodaphni	GRC	0.020	0.980
Sabro	ESP	0.020	0.980
Burra-volcanica	ESP-IC	0.020	0.980
Excursac	ESP	0.021	0.979
Dobricic	HRV	0.022	0.978
Unknown-14	UNKNOWN	0.022	0.978
Unknown-4IB	UNKNOWN	0.022	0.978
Terrano	ITA	0.023	0.977
Fogoneau	ESP	0.023	0.977
DIEGO-CHINIJA	ESP-LNZ	0.023	0.977
Tamjanika-crna	SRB	0.024	0.976
Roussanne	FRA	0.025	0.975
Unknown-5IB	UNKNOWN	0.025	0.975
Santa-Magdalena	ESP	0.026	0.974

Prime-name-STRUCTURE	Code-Country	POP1	POP2
Verijadiego	ESP-IC	0.028	0.972
VIJARIEGO-B-GRA	ESP-LNZ	0.028	0.972
Unknown-3IC	UNKNOWN	0.029	0.971
Ferral	ESP	0.030	0.970
Mollar-cano	ESP	0.030	0.970
BURRA-CHINIJA	ESP-LNZ	0.031	0.969
Unknown-2IB	UNKNOWN	0.031	0.969
Muscat-petits-grains-blancs	GRC	0.032	0.968
Sabate	ESP	0.034	0.966
Lambrusco-maestri	ITA	0.035	0.965
Ancellotta	ITA	0.036	0.964
Alarije	ESP	0.038	0.962
Muscat-Alexandria	GRC	0.040	0.960
Dimyat	BGR	0.044	0.956
Gouveio	PRT	0.045	0.955
SINFORIANO-CHANO	ESP-LNZ	0.046	0.954
De-rey	ESP	0.049	0.951
Vermantino	ITA	0.051	0.949
Alphonse-lavallee	FRA	0.052	0.948
Merseguera	ESP	0.056	0.944
Epero-gall	ESP	0.057	0.943
MALVASIA-VOLCANICA	ESP-LNZ	0.057	0.943
Montepulciano	ITA	0.058	0.942
Vijariego-blanco	ESP	0.058	0.942
Muscadelle	FRA	0.059	0.941
Listan-negro	ESP-IC	0.060	0.940
Malvar	ESP	0.063	0.937
TORRONTES-V	ESP-LNZ	0.064	0.936
Gorgollasa	ESP	0.067	0.933
Bermejuela	ESP-IC	0.068	0.932
Trepat	ESP	0.070	0.930
Malvasia-Sardegna	UNKNOWN	0.074	0.926
Alvarelhao	PRT	0.082	0.918
Grillo	ITA	0.084	0.916
Fernandella	ESP	0.084	0.916
Quigat	ESP	0.084	0.916
Tempranillo-tinto	ESP	0.090	0.910
Semillon	FRA	0.096	0.904
Pignolo	ITA	0.110	0.890
UVILLON-N	ESP-LNZ	0.110	0.890
Muscat-fleur-oranger	FRA	0.121	0.879
BREVAL-NEGR	ESP-LNZ	0.122	0.878
Albillo-forastero	ESP-IC	0.122	0.878
Unknown-1IB	UNKNOWN	0.125	0.875
Molinara	ITA	0.138	0.862
Giro-nero	ITA	0.140	0.860
MALVASIA-AL-FINA	ESP-LNZ	0.140	0.860



Prime-name-STRUCTURE	Code-Country	POP1	POP2
Unknown-4	UNKNOWN	0.141	0.859
Planta-nova	ESP	0.142	0.858
Bobal-SU	ESP	0.155	0.845
Verdejo-blanco	ESP	0.168	0.832
Garro	ESP	0.178	0.822
Falanghina-beneventana-1-	ITA	0.179	0.821
Monastrell	ESP	0.192	0.808
Moristel	ESP	0.194	0.806
Viura	ESP	0.221	0.779
Gewuerztraminer	ITA	0.222	0.778
Malvasia-bianca-lunga	ITA	0.236	0.764
Muscat-Istambul	TUN	0.246	0.754
Albillo-criollo	ESP-IC	0.282	0.718
Catarratto-bianco-comune-	ITA	0.288	0.712
Malvasia-fina	PRT	0.321	0.679
Rouge-pays	CHE	0.331	0.669
Tinto-velasco	ESP	0.332	0.668
Sylvaner-gruen	AUT	0.349	0.651
Baga	PRT	0.367	0.633
Airen	ESP	0.404	0.596
Unknown-2IC	UNKNOWN	0.410	0.590
Durella	ITA	0.424	0.576
Lambrusco-foglia-frastagliata	ITA	0.463	0.537
Samarrinho	PRT	0.475	0.525
Molar	PRT	0.481	0.519

**SUPPLEMENTARY TABLE S5.** Analysis of Molecular Variance (AMOVA) and Fst and Rst Statistics.

a)

2K-IC and LNZ (258 ind)			
VARIANCE SOURCE	VARIANCE SOURCE	Fst	Rst
POP1	POP2	0,038 ***	0,020 ***
POP1	IC	0,059 ***	0,034 **
POP2	IC	0,021 **	0,007 **
POP1	LNZ	0,052 ***	0,044 **
POP2	LNZ	0,028 ***	0,008 **
IC	LNZ	0,028 **	0,006 **
GLOBAL VARIANCE		0,041***	0,023**

\*P<0,05, \*\*P<0,01, \*\*\*P<0,001, ns no significative

b)

5POP-IC and LNZ (260 ind)			
VARIANCE SOURCE	VARIANCE SOURCE	Fst	Rst
EASTMED-CAU	BP	0,068***	0 *
EASTMED-CAU	ITA	0,059***	0,005 *
BP	ITA	0,041***	0,031 **
EASTMED-CAU	FRA-CE	0,097***	0,032 **
BP	FRA-CE	0,041***	0,034 **
ITA	FRA-CE	0,041***	0,032 **
EASTMED-CAU	IP	0,066***	0,063 *
BP	IP	0,044***	0,046***
ITA	IP	0,061***	0,065***
FRA-CE	IP	0,059***	0,082***
EASTMED-CAU	IC	0,091***	0,072 *
BP	IC	0,056***	0,043 **
ITA	IC	0,079***	0,054 **
FRA-CE	IC	0,076***	0,073***
IP	IC	0,048***	0,057***
EASTMED-CAU	LNZ	0,111***	0,051 **
BP	LNZ	0,071***	0,064 **
ITA	LNZ	0,088***	0,066 **
FRA-CE	LNZ	0,091***	0,084 **
IP	LNZ	0,057***	0,034 **
IC	LNZ	0,050***	0,045 **
GLOBAL VARIANCE		0,055***	0,052***

\*P<0,05, \*\*P<0,01, \*\*\*P<0,001, ns no significative