

Table S5. *MC1R* and *NR6A1* genotyping data in the wild boar populations. South-Europe (SE) wild boars are also considered separately according to the country of origin.

Populations	No. of animals	<i>MC1R</i> genotypes ¹																<i>NR6A1</i> genotypes ¹			
		<i>E⁺/E⁺</i>	<i>E⁺/E^{D1}</i>	<i>E^{D1}/E^{D1}</i>	<i>E⁺/E^{D2}</i>	<i>E^{D1}/E^{D2}</i>	<i>E^{D2}/E^{D2}</i>	<i>E⁺/E^P</i>	<i>E^{D1}/E^P</i>	<i>E^{D2}/E^P</i>	<i>E^P/E^P</i>	<i>E⁺/e</i>	<i>E^{D1}/e</i>	<i>E^{D2}/e</i>	<i>E^P/e</i>	<i>e/e</i>	HWE ²	C/C	C/T	T/T	HWE ²
North of Italy	113	96	0	0	2	0	0	10	0	0	0	3	0	0	2	0	0.78	108	5	0	0.74
Sardinia	26	26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	21	4	1	0.28
Bosnia and Herzegovina	16	15	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1.00	15	1	0	0.86
Croatia	10	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	7	3	0	0.47
North of Macedonia	16	9	0	0	6	0	1	0	0	0	0	0	0	0	0	0	1.00	14	2	0	0.71
Montenegro	16	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	15	1	0	0.86
Serbia	17	9	0	0	7	0	0	1	0	0	0	0	0	0	0	0	0.99	15	1	1	0.51
Slovenia	15	9	0	0	3	0	0	3	0	0	0	0	0	0	0	0	1.00	13	2	0	0.71
SE Europe	90	68	0	0	17	0	1	4	0	0	0	0	0	0	0	0	1.00	79	10	1	0.38

¹ The number of animals for each genotype is reported.

² P value of the Hardy Weinberg equilibrium calculated with the HWE software program (Linkage Utility Programs, Rockefeller University, New York, NY).