

**Appendix 1**

**Haplotypes frequencies in the obese and control groups**

Twelve haplotypes were identified and numbered considering the decreasing frequencies in the obese group. Haplotypes with a frequency over 1% (HAP1 to HAP7) have been considered for the  $\chi^2$  test of the global repartition between the obese and control groups. For each SNP, “alleles 2” are in bold.

	SNP1	SNP3	SNP5	SNP6	SNP7	SNP17	Obese group frequency $\pm$ SE (%)	SU.VI.MAX group frequency $\pm$ SE (%)
HAP1	C	<b>A</b>	<b>DelG</b>	T	C	<b>C</b>	52.14 $\pm$ 1.20	56.33 $\pm$ 2.00
HAP2	C	G	G	T	C	G	34.89 $\pm$ 1.14	28.41 $\pm$ 1.82
HAP3	C	G	G	T	C	<b>C</b>	3.47 $\pm$ 0.44	4.87 $\pm$ 0.87
HAP4	C	G	<b>DelG</b>	T	C	<b>C</b>	3.12 $\pm$ 0.42	2.76 $\pm$ 0.66
HAP5	C	<b>A</b>	<b>DelG</b>	T	C	G	2.25 $\pm$ 0.36	2.11 $\pm$ 0.58
HAP6	C	G	G	<b>C</b>	C	G	2.02 $\pm$ 0.34	1.30 $\pm$ 0.46
HAP7	<b>T</b>	G	G	T	C	G	1.50 $\pm$ 0.29	2.60 $\pm$ 0.64
HAP8	C	<b>A</b>	<b>DelG</b>	T	<b>T</b>	<b>C</b>	0.46 $\pm$ 0.16	0.65 $\pm$ 0.32
HAP9	C	G	G	<b>C</b>	C	<b>C</b>	0.06 $\pm$ 0.06	0.32 $\pm$ 0.23
HAP10	<b>T</b>	G	G	T	C	<b>C</b>	0.06 $\pm$ 0.06	0.16 $\pm$ 0.16
HAP11	C	<b>A</b>	G	T	C	<b>C</b>	0,00 $\pm$ 0,00	0.32 $\pm$ 0.16
HAP12	C	G	G	T	<b>T</b>	G	0,00 $\pm$ 0,00	0.16 $\pm$ 0.16

>98%  
p=0.027