

## Supplementary Figures and Tables

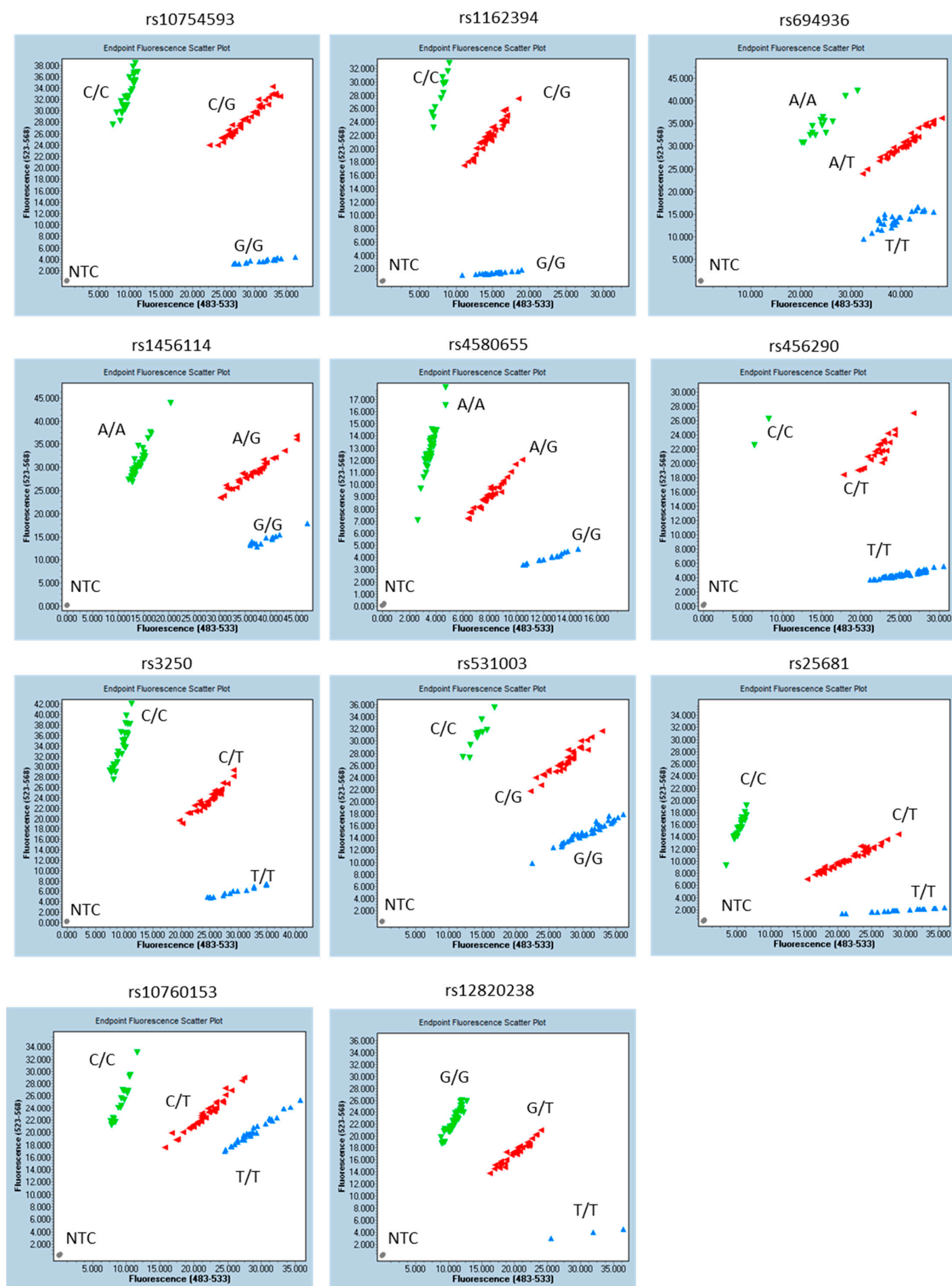
**Table S1.** Comparison of SNPs allele frequencies in RC group (n=171 - cases) and CTRL (n=773). (*dbSNP*: variant identifier; *A1*: effect allele; *F\_A*: frequency among cases; *F\_U*: frequency among controls; *A2*: non-effect allele; *CHISQ*: allelic test chi-square statistic; *P*: allelic p-value; *OR*: odds (allele 1 | cases)/odds (allele 1 | controls)). No significant association (nominal p-values) was detected.

dbSNP	Gene	A1	F_A	F_U	A2	CHISQ	P	OR
<b>rs10754593</b>	RYR2	"G"	0.401	0.395	"C"	0.04	0.84	1.03
<b>rs1162394</b>	SRGAP3	"C"	0.430	0.398	"G"	1.19	0.20	1.14
<b>rs694936</b>	NFKBIZ	"T"	0.456	0.436	"A"	0.46	0.50	1.09
<b>rs1456114</b>	PTPLB	"G"	0.322	0.345	"A"	0.67	0.41	0.90
<b>rs4580655</b>	TACR3	"G"	0.383	0.391	"A"	0.069	0.79	0.97
<b>rs456290</b>	SGCD	"C"	0.140	0.158	"T"	0.65	0.42	0.87
<b>rs3250</b>	TMEM14	"C"	0.439	0.450	"T"	0.15	0.70	0.95
<b>rs531003</b>	LPAR1	"C"	0.269	0.263	"G"	0.06	0.81	1.03
<b>rs25681</b>	C5	"T"	0.447	0.437	"C"	0.13	0.72	1.05
<b>rs10760153</b>	RAB14	"C"	0.439	0.452	"T"	0.19	0.66	0.95
<b>rs12820238</b>	EPYC	"T"	0.155	0.148	"G"	0.12	0.72	1.06

**Table S2:** Comparison of SNPs allele frequencies in allergic group (n=279 - cases) and CTRL (n=773); *A1*: effect allele; *F\_A*: frequency among cases; *F\_U*: frequency among controls; *A2*: non-effect allele; *CHISQ*: allelic test chi-square statistic; *P*: allelic p-value; *OR*: odds (allele 1 | cases)/odds (allele 1 | controls)). Significant associations (nominal p-values) are highlighted in bold.

dbSNP	Gene	A1	F_A	F_U	A2	CHISQ	P	OR
<b>rs10754593</b>	RYR2	"G"	0.403	0.395	"C"	0.13	0.72	1.04
<b>rs1162394</b>	<b>SRGAP3</b>	"C"	<b>0.450</b>	<b>0.398</b>	"G"	<b>4.58</b>	<b>0.032</b>	<b>1.24</b>
<b>rs694936</b>	NFKBIZ	"T"	0.450	0.436	"A"	0.32	0.57	1.06
<b>rs1456114</b>	PTPLB	"G"	0.321	0.345	"A"	1.05	0.31	0.90
<b>rs4580655</b>	TACR3	"G"	0.389	0.391	"A"	0.0056	0.94	0.99
<b>rs456290</b>	SGCD	"C"	0.142	0.157	"T"	0.83	0.36	0.88
<b>rs3250</b>	TMEM14	"C"	0.446	0.450	"T"	0.026	0.87	0.98
<b>rs531003</b>	LPAR1	"C"	0.274	0.263	"G"	0.28	0.60	1.06
<b>rs25681</b>	C5	"T"	0.471	0.437	"C"	2.00	0.16	1.15
<b>rs10760153</b>	RAB14	"C"	0.462	0.452	"T"	0.20	0.66	1.05
<b>rs12820238</b>	EPYC	"T"	0.167	0.148	"G"	1.17	0.28	1.16

**Figure S1:** Allelic discrimination plots resulting from the SNP genotyping assay for the 11 analysed SNPs.



**Figure S2.** Representation of the allelic distribution for the rs25681 SNP in C5 gene in the four Italian macro-areas (*N\_ITA*=northern Italy, *C\_ITA*=central Italy, *S\_ITA*=southern Italy, *SARD*=Sardinia).

