

**Supplementary Table S1.** Characteristics of the SLE patients included in the exploratory and confirmatory genetic studies.

	n	Females (%)	Age (mean±SD)	Renal involvement (%)	Positive anti-Ro/SSA antibodies (%)
Belgium	153	92%	39.2 ± 11.8	31%	60%
Spain	596	92%	28.7 ± 12.3	35%	26%
Grece	194	89%	30.9 ± 12.2	64%	22%
Milan	208	90%	30.5 ± 11.7	31%	29%
Netherlands	97	87%	29.3 ± 12.9	43%	44%
Portugal	116	97%	34.5 ± 14.7	28%	26%
Hungary	90	90%	33.8 ± 14.0	31%	39%
Germany	79	87%	32.4 ± 12.2	24%	28%

**Supplementary Table S2.** PCR Primers.

Tag SNP / gene	Forward primer	Reverse primer
<i>IFI27</i>	5'-ACCTCATCAGCAGTGACCAGT-3'	5'-ACATCATCTTGGCTGCTATGG-3'
<i>IFI44</i>	5'-GAGAGATGTGAGCCTGTGAGG-3'	5'-TTTTCCCTGTGCACAGTTGAT-3'
<i>β-actin</i>	5'-TCACCCACACTGTGCCCATCTACGA-3'	5'-CAGCGGAACCGCTCATTGCCAATGG-3'
<i>rs4862632</i>	5'-TGCTCTCAGGGAATTTAACCA-3'	5'-TCAGAAGCAGCCAACAAACTT-3'
<i>rs4862633</i>	5'-TGCAACTCTTAGCCTTGCTC-3'	5'-CACCTGCCCTTGAATTTCTTT-3'
<i>rs5743305</i>	5'-TCTCTTTCATTGAAGGCCAAA-3'	5'-TGAAATATCACAATTGGAAGGAA-3'
<i>rs10025405</i>	5'-ATTTGGCTTTGTGGAAACAGA-3'	5'-CAAGGCGAGAGGATCACTTG-3'
<i>rs6857595</i>	5'-CTGTGCAGCTGGAGGAATAAG-3'	5'-CTGGCCTTGAGACTAGGGTTT-3'
<i>rs1519309</i>	5'-TTAGCCGGGTGTAGTGGTGTGA-3'	5'-TAAGGCATTGACTGGTGTTC-3'
<i>rs3775292</i>	5'-AATCTTCCAATTGCGTGAAA-3'	5'-TAAGCTGAGGCTGTGAATGCT-3'
<i>rs4608848</i>	5'-GCTCCACTGCCTGTTTATGG-3'	5'-CACCTGCCCTTGAATTTCTTT-3'
<i>rs3775291</i>	5'-TTTCCAGAGCCGTGCTAAGT-3'	5'-TGGCTAAAATGTTTGGAGCA-3'

**Supplementary Table S3.** Primers used to identify *TLR3* Tag SNP allelic variations (ABI Prism® SNaPshot™ Multiplex Kit).

Tag SNP	SNaPshot Primer
<i>rs4862632</i>	5'-CAAAATGGCACTAGTACTCCC-3'
<i>rs4862633</i>	5'-AAAAAATTTGTTTGAGGACTTCTGGG-3'
<i>rs5743305</i>	5'-AAAAAAAAAAAAAAGCCAGTAACTATAAAGCGG-3'
<i>rs10025405</i>	5'-AAAAAAAAAAAAAAAAAAGACTCAGGAGATGGCGTTGGC-3'
<i>rs6857595</i>	5'-TGGGTGAGCCGTTATTTATC-3'
<i>rs1519309</i>	5'-AAAAAAGTTGGTTGGCAACTGACTCA-3'
<i>rs3775292</i>	5'-AAAAAAAAAAAAAAGAGCATTCTCCCTTCCT-3'
<i>rs4608848</i>	5'-AAAAAAAAAAAAAAAAAAGTGAGTGAAATAAGCTGGAT-3'
<i>rs3775291</i>	5'-ACTTGCTCATTCTCCCTTACACATA-3'

**Supplementary Table S4.** Genetic variations observed in 8 Tag SNPs in the sequence of the human *TLR3* gene in Caucasian SLE patients vs. healthy controls.

SNP		Western-European SLE population: All (n=153)		Western-European SLE population: >Ro/SSA + (n=68)		Controls (n=105) %
		%	Odds ratio (95% C.I.)	%	Odds ratio (95% C.I.)	
<i>rs4862632</i>	Major allele A	70.9%	0.99 (0.68 – 1.47)	64.2%	0.73 (0.46 – 1.16)	71.0%
	AA	51.0%	1.10 (0.67 – 1.81)	43.3%	0.81 (0.44 – 1.50)	48.6%
	GG	9.3%	-	14.9%	-	6.6%
	AG	39.7%	-	41.8%	-	44.8%
<i>rs4862633</i>	Major allele C	72.3%	0.90 (0.61 – 1.35)	70.5%	0.83 (0.51 – 1.34)	74.3%
	CC	54.0%	0.95 (0.58 – 1.57)	50.0%	0.81 (0.44 – 1.50)	55.2%
	TT	9.3%	-	9.1%	-	6.7%
	CT	36.7%	-	40.9%	-	38.1%
<i>rs5743305</i>	<b>Major allele T</b>	70.3%	1.45 (0.99 – 2.11)	<b>76.1%**</b>	<b>1.95 (1.20 – 3.17)</b>	<b>62.0%</b>
	<b>TT</b>	<b>57.4%**</b>	<b>2.07 (1.24 – 3.45)</b>	<b>65.7%***</b>	<b>2.94 (1.55 – 5.57)</b>	<b>39.4%</b>
	AA	16.9%	-	13.4%	-	15.4%
	TA	25.7%	-	20.9%	-	45.2%
<i>rs10025405</i>	Major allele A	56.8%	0.98 (0.69 – 1.41)	62.7%	1.26 (0.81 – 1.96)	57.1%
	AA	33.8%	1.23 (0.74 – 2.20)	<b>43.3%*</b>	<b>1.91 (1.00 – 3.63)</b>	<b>28.6%</b>
	GG	20.3%	-	17.9%	-	14.3%
	AG	45.9%	-	38.8%	-	57.1%
<i>rs6857595</i>	Major allele C	70.4%	0.91 (0.62 – 1.35)	73.9%	1.08 (0.66 – 1.76)	72.4%
	CC	48.3%	0.92 (0.56 – 1.51)	55.2%	1.21 (0.65 – 2.24)	50.5%
	TT	7.4%	-	7.5%	-	5.7%
	CT	44.3%	-	37.3%	-	43.8%
<i>rs1519309</i>	Major allele A	55.7%	1.00 (0.70 – 1.43)	47.0%	0.70 (0.46 – 1.09)	55.8%
	AA	40.5%	1.14 (0.68 – 1.9)	32.8%	0.81 (0.43 – 1.55)	37.5%
	GG	29.1%	-	38.8%	-	26.0%
	AG	30.4%	-	28.4%	-	36.5%
<i>rs3775292</i>	Major allele C	74.2%	0.76 (0.50 – 1.16)	77.6%	0.92 (0.54 – 1.55)	79.0%
	CC	58.4%	0.83 (0.50 – 1.38)	62.7%	0.99 (0.53 – 1.87)	62.8%
	GG	10.1%	-	7.5%	-	4.8%
	CG	31.5%	-	29.8%	-	32.4%
<i>rs4608848</i>	Major allele T	61.3%	0.92 (0.64 – 1.32)	58.1%	0.80 (0.52 – 1.25)	63.3%
	TT	38.4%	1.06 (0.63 – 1.76)	33.8%	0.71 (0.38 – 1.32)	37.1%
	CC	15.9%	-	17.6%	-	10.5%
	TC	45.7%	-	48.6%	-	52.4%

Tag SNPs were selected using the Tagger-multiMarkerTagging algorithm in the HapMap Data Rel 24/phase II database ( $r^2$  cut-off >0.8; minor allele frequency >0.2, CEU population). Odds ratios were calculated for the major allele frequencies and the frequencies of individuals homozygous for the major allele in the SLE populations vs. healthy controls. The distribution of all genotypes are in Hardy-Weinberg equilibrium in the control population. C.I. Confidence Interval. \* $p$ <0.05; \*\* $p$ <0.01; \*\*\* $p$ <0.001 using Fisher's exact test.