

**Supplemental Table 1.** Number of SNPs with evidence of association with methylation of sites associated with lupus nephritis.

CpG	Gene	# SNPs tested	# SNPs regression p<0.05	# SNPs FDR q<0.05
<b>cg15262954</b>	<i>HELZ2</i>	<b>37</b>	<b>4</b>	<b>1</b>
cg19168338	<i>CORO7</i>	18	1	0
cg00356916	<i>CASQ2</i>	26	0	0
cg01079652	<i>IFI44</i>	57	2	0
cg05883128	<i>DDX60</i>	51	0	0
cg25114611	<i>FKBP5;</i> <i>LOC285847</i>	26	6	0
<b>cg22891070</b>	<i>HIF3A</i>	<b>49</b>	<b>13</b>	<b>3</b>
cg05552874	<i>IFIT1</i>	49	4	0
cg18468088	No gene w/in 5KB	49	5	0
cg00791854	<i>IL6R</i>	23	2	0
cg23510764	No gene w/in 5kb	28	0	0
cg02812482	No gene w/in 5kb	16	1	0
<b>cg04845871</b>	<i>MIR-29B-2, LOC148696</i>	<b>49</b>	<b>12</b>	<b>1</b>
<b>cg23256579</b>	<i>PRR4</i>	<b>27</b>	<b>14</b>	<b>13</b>
<b>cg16672562</b>	<i>HIF3A</i>	<b>49</b>	<b>14</b>	<b>4</b>
cg16032408	<i>SLC6A6</i>	92	1	0
cg13437525	<i>METTL7A</i>	30	3	0
cg14519664	<i>MLLT3</i>	39	1	0
cg10959651	<i>RSAD2</i>	65	0	0

**Supplemental Table 2.** Association between methylation status and lupus nephritis adjusting for SNPs. “No SNP” results reflect the association observed between methylation of the site and lupus nephritis as presented in Table 1 and are included for reference.

CpG	Gene	SNP	SNP association results			Lupus nephritis association results	
			Regression coefficient for SNP (95% CI)	Regression p-value	FDR q-value	$\beta$ (95% CI)	Regression p-value
cg15262954	<i>HELZ2</i>	rs1151621	0.011 (0.005 to 0.016)	2.66E-04	0.01	0.014 (0.009 to 0.019)	1.65E-07
		No SNP				0.014 (0.009 to 0.019)	2.84E-08
cg22891070	<i>HIF3A</i>	rs2072491	-0.06 (-0.97 to -0.023)	1.79E-03	0.029	-0.094 (-0.132 to -0.055)	2.56E-06
		rs10412620	-0.046 (-0.068 to -0.023)	9.79E-05	0.002	-0.108 (-0.146 to -0.071)	3.70E-08
		rs11880808	0.051 (0.027 to 0.074)	3.33E-05	0.002	-0.109 (-0.146 to -0.072)	2.62E-08
		No SNP				-0.094 (-0.130 to -0.058)	5.69E-07
cg16672562	<i>HIF3A</i>	rs2072491	-0.07 (-0.108 to -0.033)	2.91E-04	0.007	-0.091 (-0.130 to -0.053)	5.49E-06
		rs10412620	-0.042 (-0.066 to -0.019)	4.63E-04	0.007	-0.106 (-0.145 to -0.068)	1.20E-07
		rs11880808	0.05 (0.026 to 0.074)	6.02E-05	0.003	-0.107 (-0.146 to -0.070)	7.02E-08
		rs16980543	-0.059 (-0.098 to -0.021)	2.99E-03	0.035	-0.102 (-0.141 to -0.064)	3.67E-07
		No SNP				-0.092 (-0.129 to -0.055)	1.55E-06
cg04845871	<i>MIR-29B-2b, LOC148696b</i>	rs2076221	0.010 (0.005 to 0.016)	4.78E-04	0.023	0.020 (0.012 to 0.028)	8.98E-07
		No SNP				0.019 (0.012 to 0.027)	1.22E-06
cg23256579	<i>PRR4</i>	rs10772380	0.026 (0.012 to 0.041)	5.00E-04	0.007	-0.050 (-0.070 to -0.030)	1.66E-06
		rs1015443	0.025 (0.013 to 0.037)	5.16E-05	0.003	-0.054 (-0.074 to -0.035)	1.71E-07
		rs10845242	0.026 (0.014 to 0.038)	2.72E-05	0.003	-0.055 (-0.074 to -0.035)	1.36E-07
		rs10492102	0.028 (0.014 to 0.043)	1.86E-04	0.005	-0.050 (-0.070 to -0.030)	2.19E-06
		rs3851583	0.028 (0.014 to 0.043)	2.05E-04	0.005	-0.049 (-0.069 to -0.029)	2.31E-06
		rs10845252	0.026 (0.012 to 0.041)	5.00E-04	0.007	-0.050 (-0.070 to -0.030)	1.65E-06

rs7307031	-0.02 (-0.033 to -0.007)	3.50E-03	0.028	-0.057 (-0.077 to -0.037)	8.57E-08
rs10845279	-0.02 (-0.033 to -0.007)	3.50E-03	0.028	-0.057 (-0.077 to -0.036)	1.01E-07
rs12226919	-0.02 (-0.033 to -0.007)	3.50E-03	0.028	-0.057 (-0.077 to -0.037)	8.57E-08
rs12226920	-0.02 (-0.033 to -0.007)	3.67E-03	0.028	-0.057 (-0.077 to -0.036)	1.05E-07
rs7135018	0.028 (0.013 to 0.044)	3.89E-04	0.007	-0.049 (-0.069 to -0.028)	4.42E-06
rs12581501	0.025 (0.009 to 0.040)	2.00E-03	0.025	-0.053 (-0.073 to -0.033)	4.23E-07
rs4298989	-0.02 (-0.033 to -0.007)	3.50E-03	0.028	-0.057 (-0.077 to -0.037)	8.57E-08
No SNP				-0.050 (-0.070 to -0.030)	1.41E-06

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\*  $\beta$  represents the difference in methylation between SLE cases with nephritis and SLE cases without nephritis adjusted for disease duration, population substructure, mixed cell populations, and listed SNP if indicated.