



Figure S1. Calcitriol/calcidiol ratio by *VDR* genotypes and haplogenotypes in SLE patients by clinical activity. **a)** Calcitriol/calcidiol ratio by *FokI* genotypes in SLE, **b)** Calcitriol/calcidiol ratio by *BsmI*, *ApaI* and *TaqI* haplogenotypes in SLE. Data provided in medians (p05th-p95th), Mann-Whitney test. Highlighted values represent significant difference ($p < 0.05$). SLE: systemic lupus erythematosus.

Table S1. Vitamin D serum status between SLE patients *vs.* CS according the *FokI* genotypes and *VDR* haplogenotypes

Study group SLE <i>vs.</i> CS	Calcidiol (ng/mL)			Calcitriol/calcidiol ratio (pg/ng)			Calcitriol (pg/mL)		
	Median	n	<i>p</i> value	Median	n	<i>p</i> value	Median	n	<i>p</i> value
<i>FokI</i> CC-SLE	23.3	45	0.69	2.01	45	0.03	46.1	45	0.001
<i>FokI</i> CC-CS	22.3	57		1.78	46		39.8	46	
<i>FokI</i> CT- SLE	19.2	78	0.02	2.24	63	<0.001	47.9	64	<0.001
<i>FokI</i> CT- CS	23.6	100		1.42	88		35.2	88	
<i>FokI</i> TT- SLE	20.9	45	0.26	2.64	43	<0.01	50.8	43	<0.01
<i>FokI</i> TT- CS	24.4	38		1.42	9		34.9	29	
GCT/GCT- SLE	20.2	48	0.02	2.43	44	<0.001	48.6	44	<0.01
GCT/GCT- CS	25.1	56		1.39	49		38.1	49	
AAC/GAT- SLE	16.1	18	0.01	2.80	17	0.01	46.3	17	0.10
AAC/GAT- CS	23.9	15		1.65	14		39.3	14	
AAC/GCT- SLE	21.9	43	0.42	2.09	36	<0.001	46.1	37	<0.001
AAC/GCT- CS	23.0	52		1.41	45		34.4	45	
GAT/GCT- SLE	24.4	37	0.86	1.86	36	0.11	47.1	36	0.01
GAT/GCT- CS	22.3	35		1.55	32		36.4	32	
GAT/GAT- SLE	23.5	7	0.72	1.80	7	0.40	42.2	7	0.53
GAT/GAT- CS	23.9	11		2.17	9		48.7	9	

Data provided in medians (percentile: p05th-p95th), Mann-Whitney test. SLE: systemic lupus erythematosus. CS: control subject.

Table S2. Vitamin D serum status analysis intra each group (SLE patients and CS) by the FokI genotypes and VDR haplogenotypes

Variable and study group	FokI genotypes <i>p</i> values			VDR haplogenotypes <i>p</i> values									
	CC vs. CT	CC vs. TT	CT vs. TT	GCT/GCT vs. AAC/GAT	GCT/GCT vs. AAC/GCT	GCT/GCT vs. GAT/GCT	GCT/GCT vs. GAT/GAT	AAC/GAT vs. AAC/GCT	AAC/GAT vs. GAT/GCT	AAC/GAT vs. GAT/GAT	AAC/GCT vs. GAT/GCT	AAC/GCT vs. GAT/GAT	GAT/GCT vs. GAT/GAT
SLE patients (intra group)													
Calcidiol (ng/mL)	0.11	0.22	0.88	0.21	0.61	0.38	0.30	0.17	0.04	0.08	0.50	0.41	0.59
Calcitriol/calcidiol ratio (pg/ng)	0.95	0.65	0.43	0.84	0.44	0.87	0.22	0.71	0.90	0.43	0.46	0.45	0.27
Calcitriol (pg/mL)	0.86	0.50	0.58	0.61	0.43	0.53	0.20	0.22	0.25	0.13	0.97	0.39	0.46
Control subjects (intra group)													
Calcidiol (ng/mL)	0.48	0.49	0.78	0.90	0.15	0.13	0.49	0.42	0.27	0.61	0.52	0.89	0.96
Calcitriol/calcidiol ratio (pg/ng)	0.26	0.59	0.75	0.94	0.17	0.74	0.21	0.34	0.86	0.22	0.32	0.03	0.20
Calcitriol (pg/mL)	0.09	0.95	0.17	0.82	0.33	0.55	0.05	0.34	0.90	0.15	0.09	<0.01	0.09

The *p* values indicate the differences found within each group. Mann-Whitney test. The data of the medians of each group is found in table S1

Table S3. Vitamin D serum status in SLE patients by clinical activity according the *FokI* genotypes and *VDR* haplotypes

Study group by clinical activity	Calcidiol (ng/mL)			Calcitriol/calcidiol ratio (pg/ng)			Calcitriol (pg/mL)		
	Median	n	<i>p</i> value	Median	n	<i>p</i> value	Median	n	<i>p</i> value
FokI CC-Active SLE	21.9	20	0.29	2.48	20	0.22	46.6	20	0.90
FokI CC- Remission SLE	24.5	22		1.90	21		46.2	21	
FokI CT- Active SLE	18.9	26	0.28	3.40	20	0.07	49.2	20	0.14
FokI CT- Remission SLE	20.3	45		1.91	40		45.4	41	
FokI TT- Active SLE	24.5	21	0.50	1.90	20	0.74	44.8	20	0.78
FokI TT- Remission SLE	21.9	20		2.64	19		50.8	19	
GCT/GCT- Active SLE	20.6	17	0.94	3.63	14	0.55	52.5	14	0.14
GCT/GCT- Remission SLE	19.6	29		2.11	28		45.7	28	
AAC/GAT- Active SLE	12.1	7	0.03	4.21	6	0.25	44.9	6	0.80
AAC/GAT- Remission SLE	21.4	11		2.80	11		46.3	11	
AAC/GCT- Active SLE	22.2	20	0.40	2.10	18	0.53	42.1	18	0.59
AAC/GCT- Remission SLE	22.9	17		2.15	15		46.7	16	
GAT/GCT- Active SLE	25.5	14	0.93	1.60	14	0.45	47.1	14	0.53
GAT/GCT- Remission SLE	23.9	20		1.92	19		44.7	19	
GAT/GAT- Active SLE	36.5	2	0.20	--	--	--	48.0	7	--
GAT/GAT- Remission SLE	20.6	3		--	--		46.7	7	

Table S4. Vitamin D metabolism variables and *VDR* variants in SLE patients stratified by renal activity.

Variable	Renal activity (n=34)	No renal activity (n=69)	<i>p</i> value
Vitamin D metabolism variables			
Calcidiol (ng/mL) ^a	20.6 (3.26-44.3)	25.1 (12.2-40.4)	0.13
Calcitriol (pg/mL) ^a	47 (19.0-53.2)	41.5 (21.8-51.2)	0.02
Calcitriol/calcidiol ratio (pg/ng) ^a	2.13 (0.76-15.3)	1.54 (0.71-3.21)	0.02
VDR variants			
<i>FokI</i> genotypes % (n)^b			0.40
CC	21 (7/34)	30 (21/69)	
CT	47 (16/34)	48 (33/69)	
TT	32 (11/34)	22 (15/69)	
<i>BsmI</i> genotypes % (n)^b			0.44
AA	6 (2/34)	2 (1/69)	
AG	35 (12/34)	35 (24/69)	
GG	59 (20/34)	64 (44/69)	
<i>ApaI</i> genotypes % (n)^b			0.93
AA	15 (5/34)	14 (10/69)	
AC	47 (16/34)	51 (35/69)	
CC	38 (13/34)	35 (24/69)	
<i>TaqI</i> genotypes % (n)^b			0.69
CC	3 (1/34)	1 (1/69)	
CT	44 (15/34)	38 (26/69)	
TT	53 (18/34)	61 (42/69)	

^aData provided in medians (percentile: p05th-p95th), Mann-Whitney test. ^bData provided in percentages and n, χ^2 test. Highlighted data indicate significant differences.