

**Supplementary Table S7.** Differentially methylated CpG sites (DMCs) associated with SLE disease manifestations in the discovery cohort.

ACR criterion	Manifestation	positive cases, n	negative cases, n	DMCs, n <sup>*</sup>	Genes annotated to DMCs
1	Malar rash	169	131	0	n.a.
2	Discoid rash	65	235	3	<i>ELOVL2, OTUD7A</i>
3	Photosensitivity	183	117	0	n.a.
4	Oral ulcers	62	238	14	<i>AP3S1, C9orf131, FAM120B, FCAR, GJB6, IFFO1, PTEN, TFDP1, WDFY1</i>
5	Non-erosive arthritis	220	80	0	n.a.
6	Serositis	124	176	0	n.a.
7	Renal disorder	81	219	1	<i>FADD</i>
8	Neurological disorder	16	284	0	n.a.
9	Hematological disorder	180	120	1	<i>IFITM1</i> <sup>†</sup>
10	Immunological disorder	174	126	0	n.a.
11	Antinuclear antibody positive	293	7	30	<i>C1orf21, CCT5, CDK5R2, DMRTA2, DYNLT1, EPG5, EYA1, FAM217B, FAM46B, FAM47E, GCFC1-AS1, HNRNPR, KLHDC4, NKX2-5, RASGEF1C, RNF213, SHANK2, WDR17, ZFAND3</i>

\*Discovery cohort SLE case-case logistic regression association analysis,  $p < 1.3 \times 10^{-7}$ ,  $|\Delta\beta| > 0.05$

<sup>†</sup> The DMC at cg23570810 in *IFITM1* was nominally significant in the replication cohort ( $p\text{-value}_{\text{replication}} = 0.00103$ ,  $\Delta\beta_{\text{replication}} = -0.082$ ).

n.a., not applicable