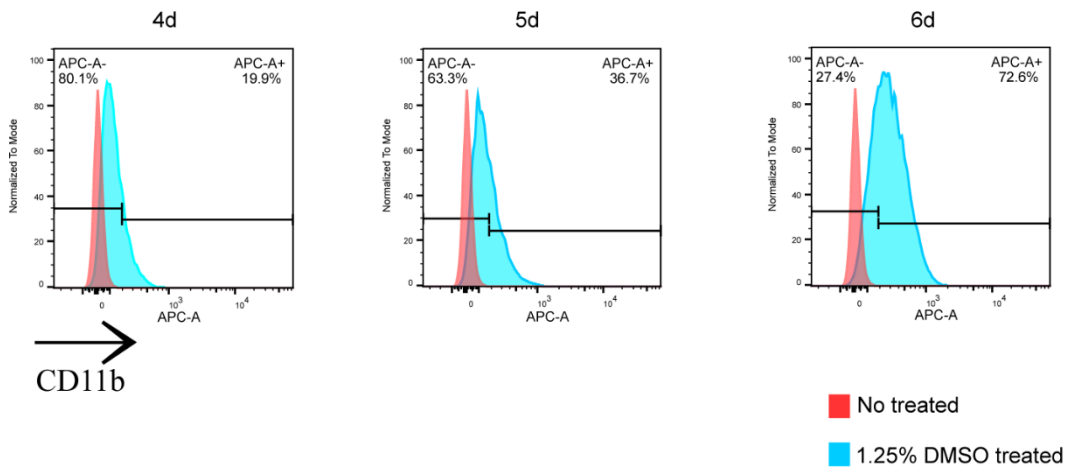


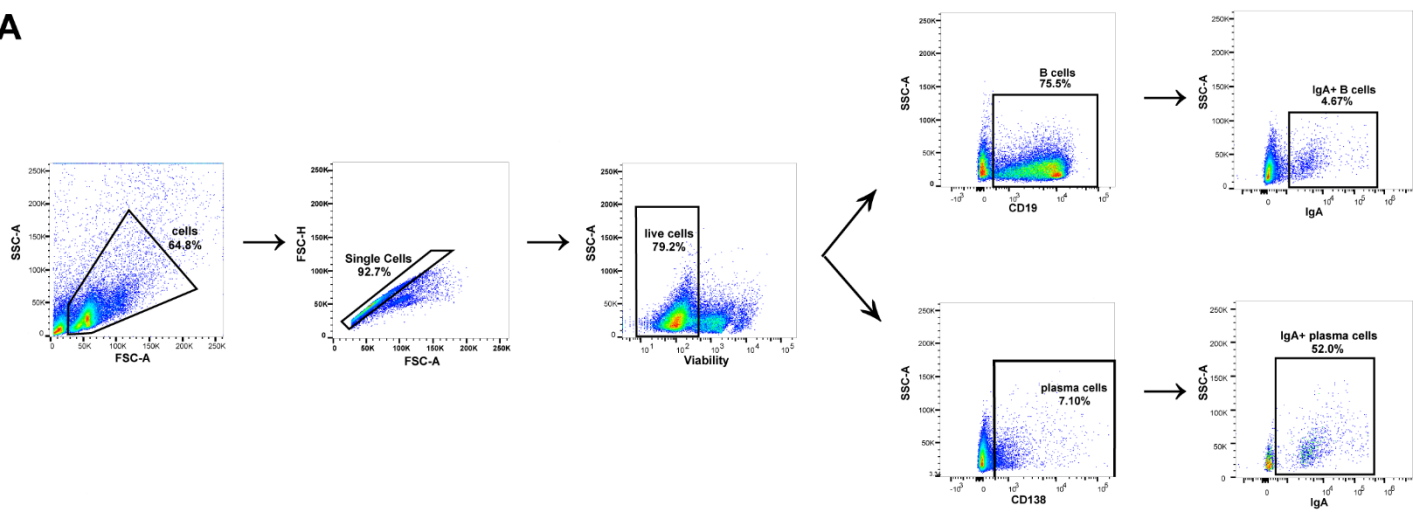
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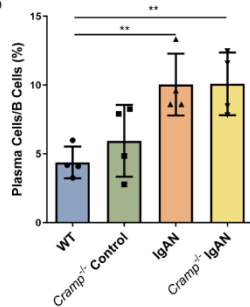


**Supplemental Figure 1. HL-60 differentiated into neutrophil-like cells by DMSO.**

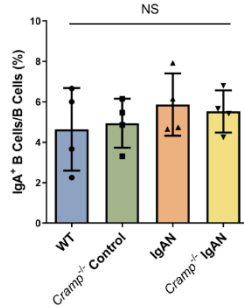
**A**



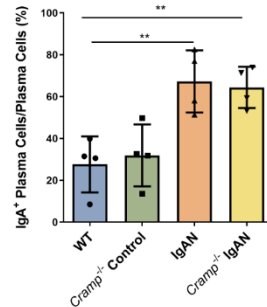
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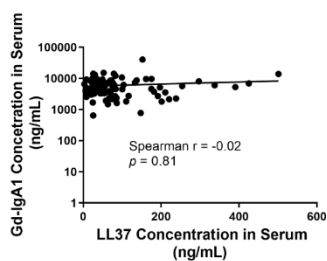
**C**



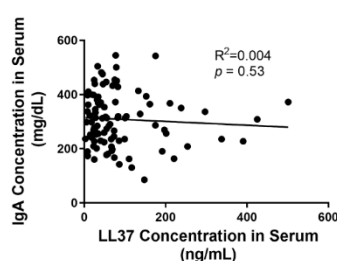
**D**



**E**



**F**



**Supplemental Figure 2. LL37/CRAMP is unlikely to be involved in pathogenic IgA overproduction.** (A) The representation gating strategy of cell sorting. (B-D) The percentage of plasma cells/B cells (B), IgA<sup>+</sup> B cells/B cells (C), and IgA<sup>+</sup> plasma cells/plasma cells (D) in the Peyer's patches of mice. (E) Correlation analysis between serum Gd-IgA1 levels and serum LL37 levels by Spearman correlation analysis. (F) Correlation analysis between serum IgA levels and serum LL37 levels by Spearman correlation analysis. \*\* $p < 0.01$ .

Supplemental Table 1. Baseline clinicopathologic characteristics of participants

	Healthy Controls( <i>n</i> =38)	IgAN-Stable( <i>n</i> =503)	IgAN-ESRD( <i>n</i> =52)	<i>P</i> value
Male, <i>n</i> (%)	7 (18.42%)	232 (46.12%)	30 (57.69%)	0.001
Age (yr), median (IQR)	35.00 (28.25-39.75)	37.00 (29.00-47.00)	33.00 (27.25-46.75)	0.13
UPCR (g/g), median (IQR)	NA	0.74 (0.38-1.40)	2.53 (1.43-3.86)	<0.001
Serum creatinine (μmol/L), median (IQR)	NA	82.00 (64.00-103.00)	176.00 (132.25-236.50)	<0.001
eGFR (mL/min per 1.73 m <sup>2</sup> )	NA	94.60 (71.01-112.36)	37.15 (27.16-53.44)	<0.001
SBP (mmHg), median (IQR)	NA	125.00 (115.00-136.00)	143.50 (126.00-159.50)	<0.001
DBP (mmHg), median (IQR)	NA	80.00 (73.00-88.00)	90.50 (83.00-104.75)	<0.001
Oxford classification, <i>n</i> (%)				
M1	NA	86 (17.10)	21 (41.18)	<0.001
E1	NA	24 (4.77)	5 (9.80)	0.17
S1	NA	402(79.92)	47 (92.15)	0.034
T1-T2	NA	56 (11.13)	38 (74.50)	<0.001
C1-C2	NA	169 (33.60)	26 (50.98)	0.013
Follow-up time (m), median (IQR)	NA	71.00 (50.00-93.00)	73.55 (42.97-88.00)	0.74

IQR, interquartile range; UPCR, urine protein to creatinine ratio; NA, not available; eGFR: estimated glomerular filtration rate; SBP: systolic blood pressure; DBP: diastolic blood pressure; M1, mesangial hypercellularity; E1, endocapillary hypercellularity; S1, segmental glomerulosclerosis; T, tubular atrophy/interstitial fibrosis; T1, T 26%–50%; T2, T >50%; C0, no crescents; C1, crescents in less than one fourth of glomeruli; C2, crescents in over one fourth of glomeruli.

Supplemental Table 2. Baseline peripheral leukocytes counts of IgAN patients grouped by prognosis

	<b>IgAN-Stable(n=503)</b>	<b>IgAN-ESRD (n=52)</b>	<b><i>P</i> value</b>
Neutrophil counts (*10 <sup>9</sup> /L)	3.50 (2.80-4.50)	3.85 (3.13-5.18)	0.019
Lymphocyte counts (*10 <sup>9</sup> /L)	2.00 (1.60-2.40)	1.90 (1.60-2.45)	0.61
Neutrophil to lymphocyte ratio (NLR)	1.75 (1.36-2.31)	1.98 (1.66-2.77)	0.006
Monocyte counts (*10 <sup>9</sup> /L)	0.41 (0.32-0.52)	0.39 (0.33-0.56)	0.75
Eosinophil counts(*10 <sup>9</sup> /L)	0.13 (0.09-0.20)	0.19 (0.11-0.29)	0.004
Basophil counts (*10 <sup>9</sup> /L)	0.02 (0.01-0.03)	0.02 (0.01-0.04)	0.56