Supplementary Fig1. Analysis of lymphocytes in murine septic spleens

(A) Gating strategies of live lymphocytes in spleen and blood. (B) Immunization model of anti-CD25 antibody injection in CLP mice. (C) dsDNA levels in Sham, CLP mice treated with or without DNase (n=5). (D) Representative model of CLP mice treated with betulin. (E) Western blot images of HMGCS1 and HMGCR expression in CD4+ T-cells. (F) Representative flow cytometric analysis of CD4+ T-cells and (G) Treg of septic mice with betulin treatment (n=5). Each bar represents means ± 95%CI. Data comparison between two groups was analyzed by unpaired t-test. Statistical analysis for three or more groups was preformed using one-way ANOVA. *p < 0.05, **p < 0.01, ***p < 0.001, ****p < 0.0001.

Supplementary Table 1. Baseline characteristics of healthy controls (HC) and Sepsis patients.

	Healthy Control (N = 19)	ARDS (N=19)	P value
Gender (n, %)			0.99
Male	11 (57.9%)	10 (52.6%)	
Female	8 (42.1%)	9 (47.4%)	
Ages (years)	52.53±15.40	68.32±12.81	0.002
BMI (kg/m²)	23.72±3.47	22.66±3.24	0.335
Neutrophils (10⁹/L)	4.65±1.11	9.64±5.76	<0.05
Monocytes (10⁹/L)	0.41±0.15	0.51±0.44	0.315
Lymphocytes (10⁹/L)	1.80±0.49	0.55±0.35	<0.05
Platelets (10⁹/L)	119.53±76.61	213.95±45.99	<0.05
Hemoglobin (g/L)	140.63±10.78	101.74±21.30	<0.05
Albumin (g/L)	39.68±3.48	29.11±3.91	<0.05
CRP (mg/L)	2.76±3.00	55.04±24.94	<0.05

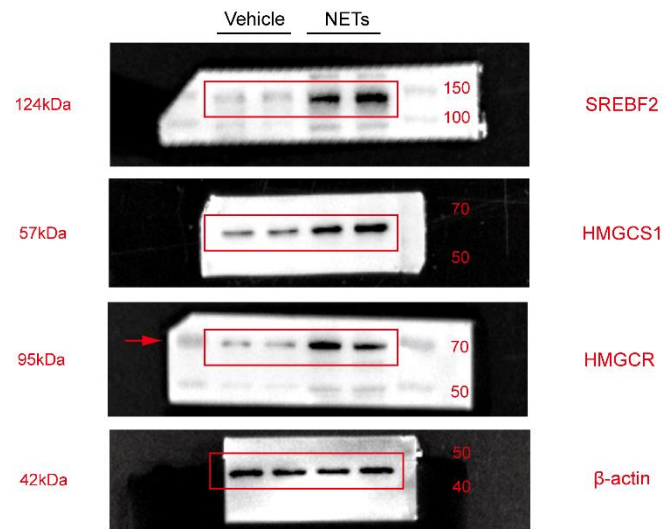Data are expressed as n (%), mean ± SD or median (interquartile range[IQR]).

BMI: body mass index.

Supplementary Table 2. Primer sequence of q-PCR.

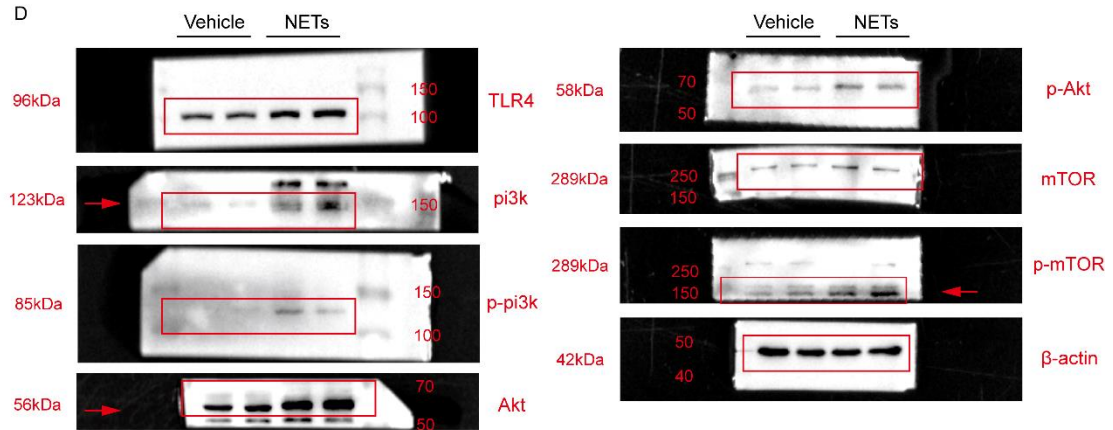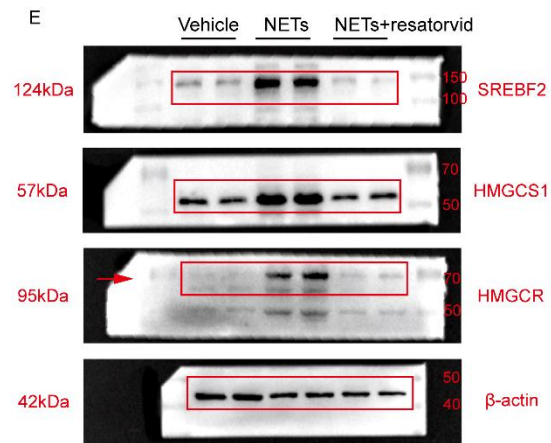| Gene	Forward	Reverse
Mouse-*Srebf2*	TGGGCGATGAGCTGACTCT	CAAATCAGGGAACTCTCCCAC
Mouse-*Hmgcr*	TGTTCACCGGCAACAACAAGA	CCGCGTTATCGTCAGGATGA
Mouse-*Hmgcs1*	CGGATCGTGAAGACATCAACTC	CGCCCAATGCAATCATAGGAA
Mouse-*Sqle*	GACCTCGTTCGTGACGGAC	CTCCCCAACTATCCTGTCGG
Mouse-*Gapdh*	AGGTCGGTGTGAACGGATTTG	GGGGTCGTTGATGGCAACA

Full unedited gel for Figure 4.

C

Vehicle   NETs

124kDa   150   100   SREBF2

57kDa   70   50   HMGCS1

95kDa   70   50   HMGCR

42kDa   50   40   β-actin

Full unedited gel for Figure 5.

D

Vehicle   NETs

96kDa   150   100   TLR4

123kDa   150   pi3k

85kDa   150   100   p-pi3k

56kDa   70   50   Akt

Vehicle   NETs

58kDa   70   50   p-Akt

289kDa   250   150   mTOR

289kDa   250   150   p-mTOR

42kDa   50   40   β-actin

Full unedited gel for Figure 5.

E

Vehicle   NETs   NETs+resatorvid

124kDa   SREBF2   150 100

57kDa   HMGCS1   70 50

95kDa   HMGCR   70 50

42kDa   β-actin   50 40

Full unedited gel for Figure 7.

B

Sham   CLP   CLP+Betulin

124kDa   SREBF2   150 100

42kDa   β-actin   50 40
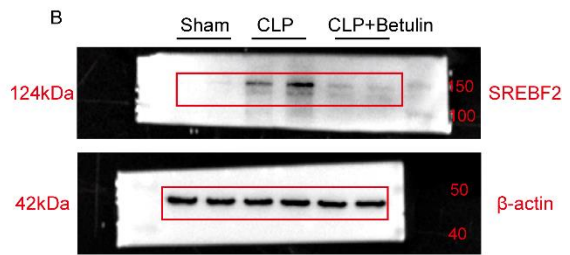
Full unedited gel for Supplement Figure S1.

E

Sham   CLP   CLP+Betulin

57kDa   HMGCS1   70 50

95kDa   HMGCR   70 50

42kDa   β-actin   50 40 30