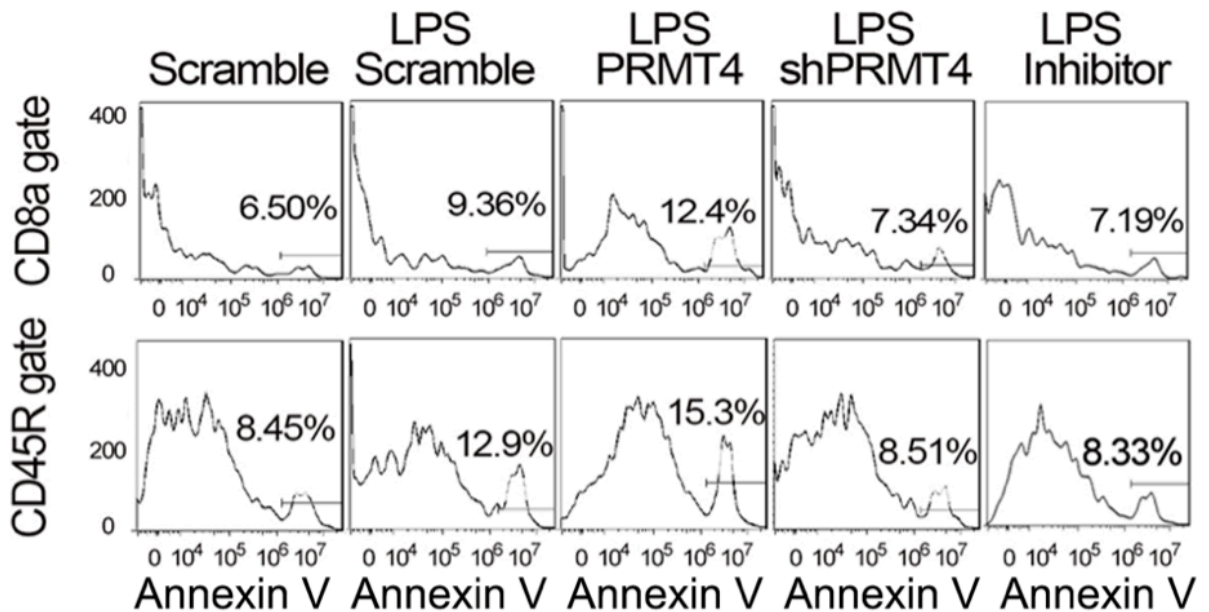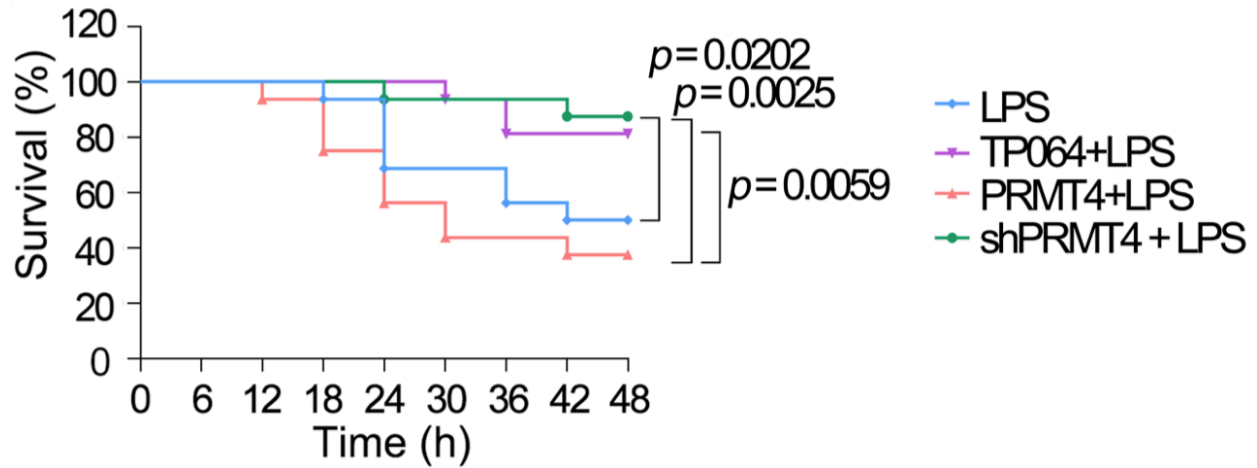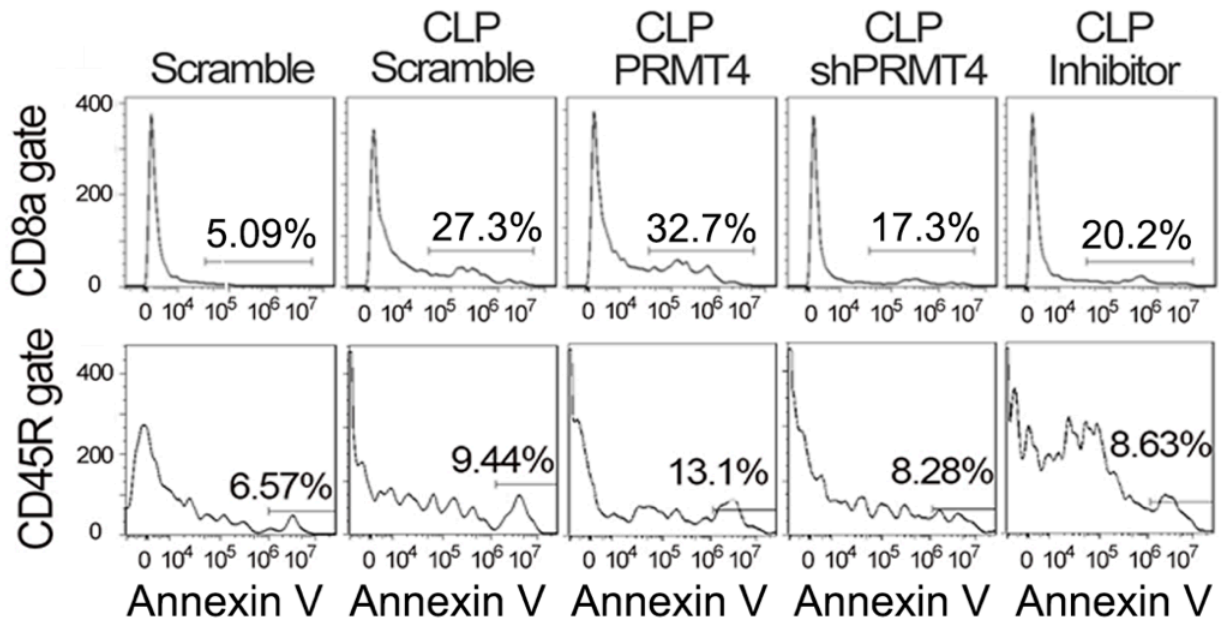sFig. 1. PRMT4 mediates cell death of CD8+ T cells and CD45R+ B cells in LPS lung injury mouse models. PRMT4 lenti-viral expression and knockdown particles were intratracheally administrated in C57BL/6J mice for 14 d. LPS was subsequently challenged for 24 h. Total T cells or B cells were isolated from mouse splenic tissues using negative selection kits and analyzed with flow cytometry. CD8a was used as a CD8 T lymphocyte marker. CD45R was used as the marker of B lymphocytes.
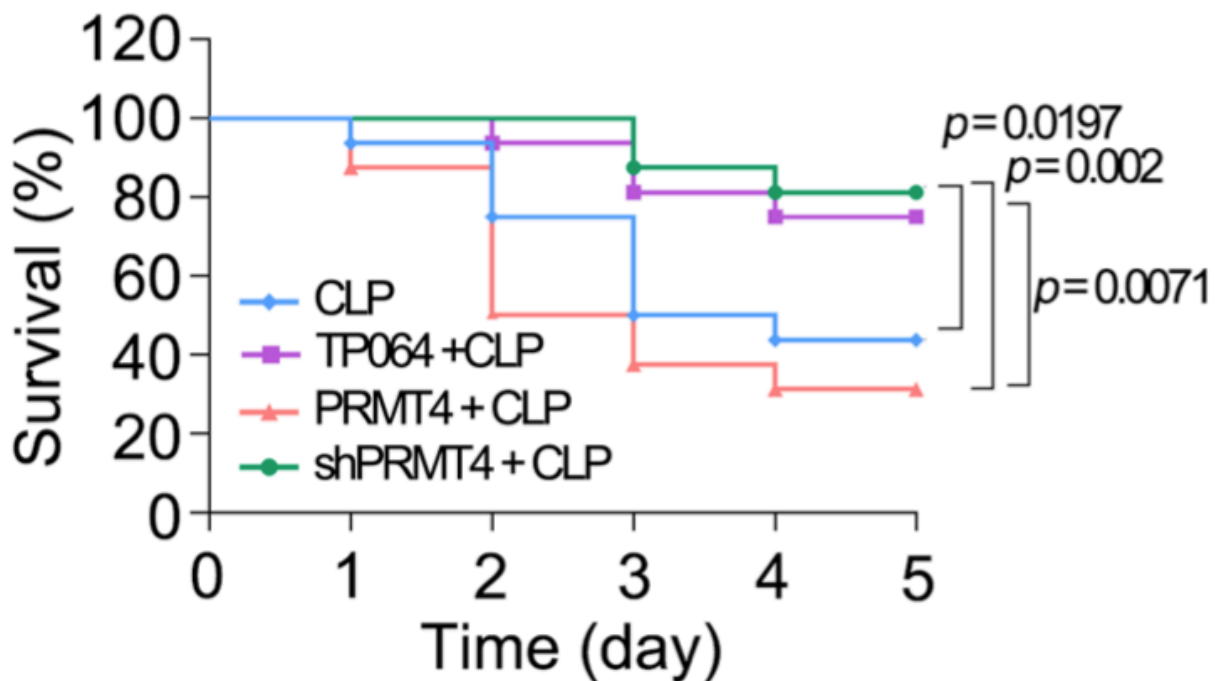
sFIG. 2. Replication of LPS-induced lung injury murine model. PRMT4 lenti-viral

expression, knockdown, or empty vector particles were intratracheally administrated in

C57BL/6J mice for 14 d. LPS was performed mice, and one group of mice were treated with

TP064. Mouse survival were observed for 48 h. (n = 16 in each group).

sFig. 3. PRMT4 mediates cell death of CD8+ T cells and CD45R+ B cells in the CLP septic

mouse model. PRMT4 lenti-viral expression and knockdown particles were intratracheally

administrated in C57BL/6J mice for 14 d. CLP procedure was performed mice, and mice were harvested at the prespecified time of 48 h. Total T cells or B cells were isolated from mouse splenic tissues using negative selection kits. Cells were stained with CD8 or CD45R antibodies and analyzed with flow cytometry. CD8a was used as CD8+ T lymphocyte marker. CD45R was used as the marker of B lymphocytes.

sFIG. 4. Replication of CLP septic murine model. PRMT4 lenti-viral expression and knockdown particles were intratracheally administrated in C57BL/6J mice for 14 d. CLP procedure was performed mice, and ong group of mice were treated with TP064. Mouse survival were observed for 5 days. (n = 16 in each group).

Supplementary Table 1 – One stage meta-analysis of the murine LPS mediated acute lung injury model.

group	Haz. Ratio.	Std. err.	Z.	P> |z|	[95% conf.	interval]
PRMT4 + LPS.	1.632915	.6251621	1.28	0.200.	.7710468.	3.
shPRMT4 + LPS	.1428879	.1091758	-2.55	0.011	.0319611	.63
TP064 + LPS.	.2837468	.1639594	-2.18	0.029	.0914272	.88

*This is HR (95% CI and p value) of pooled data (n=104)

Supplementary Table 2 – One stage meta-analysis of the murine CLP septic model.

group	Haz. Ratio.	Std. err.	Z.	P> |z|	[95% conf.	interval]
PRMT4 + CLP.	1.387858	.5019132	0.91	0.365	.6831428	2.819542
shPRMT4 + CLP	.2243417	.1273488	-2.63	0.008	.073743	.6824948
TP064 + CLP.	.3462799	.1691909	-2.17	0.030	.1329027	.9022375

*This is HR (95% CI and p value) of pooled data (n=104)