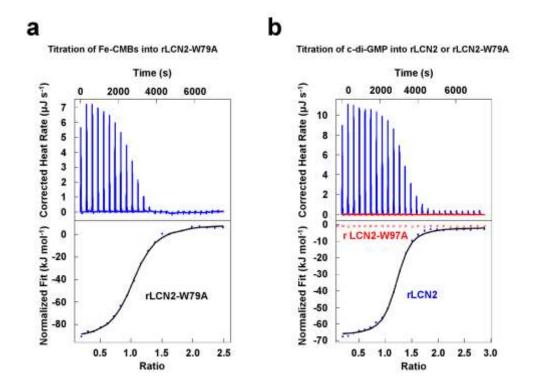
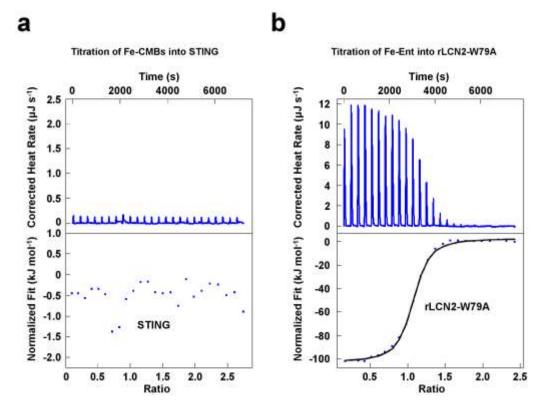
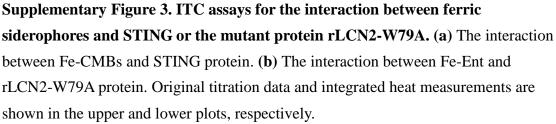


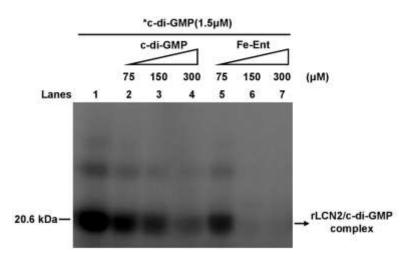
**Supplementary Figure 1. ITC assay for the interaction between cGAMP and rLCN2.** Original titration data and integrated heat measurements are shown in the upper and lower plots, respectively.



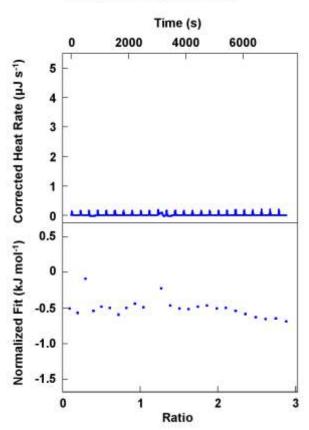
Supplementary Figure 2. ITC assays for the interaction between the mutant protein rLCN2-W79A and Fe-CMBs or c-di-GMP. (a) The interaction between Fe-CMBs and rLCN2-W79A protein. (b) The interaction between c-di-GMP and rLCN2 /rLCN2-W79A protein. Original titration data and integrated heat measurements are shown in the upper and lower plots, respectively. Blue and red indicate data for rLCN2 and rLCN2-W79A, respectively.







Supplementary Figure 4. Cross-linking assay for the ability of c-di-[ $^{32}$ P]GMP to bind to rLCN2 with Fe-Ent. Competitive experiments were carried out by addition 75-300  $\mu$ M of unlabeled c-di-GMP (lanes 2 to 4) or Fe-Ent (lanes 5 to 7) to the reaction mixtures containing 15  $\mu$ M rLCN2 and 1.5  $\mu$ M c-di-[ $^{32}$ P]GMP (lanes 2 to 4). The reaction samples were assayed on a 12% w/v SDS–PAGE.



Titration of Fe-Ent into STING

Supplementary Figure 5. ITC assay for the interaction between Fe-Ent and STING. Original titration data and integrated heat measurements are shown in the upper and lower plots, respectively.

	LCN2				LCN2-W97A			
	$\Delta G$ kJ mol <sup>-1</sup>	∆H kJ mol <sup>-1</sup>	$\Delta S$ J mol <sup>-1</sup> K <sup>-1</sup>	n	$\Delta G$ kJ mol <sup>-1</sup>	$\Delta H$ kJ mol <sup>-1</sup>	$\Delta S$ J mol <sup>-1</sup> K <sup>-1</sup>	п
Fe-CMBs	-27.81±1.05	-91.77±2.26	-214.5±3.15	$1.079 \pm 0.04$	-30.81±2.05	-102.19±3.12	-239.4±3.04	$0.996 \pm 0.04$
Fe-Ent	-31.8±1.89	-106.67±2.62	-251.1±3.22	$1.039 \pm 0.01$	-30.9±1.14	-105.5±4.94	-250.2±3.11	1.041±0.01
c-di-GMP	-31.16±1.52	$-65.39 \pm 1.36$	-114.8 ±2.05	$1.045 \pm 0.01$	/	/	/	/

Supplementary Table 1. Thermodynamic parameters measured by ITC at 25  $^\circ\!\!C$