Supporting information

Neutrophil-like pH-responsive pro-efferocytic nanoparticles improve neurological recovery by promoting erythrophagocytosis after intracerebral hemorrhage

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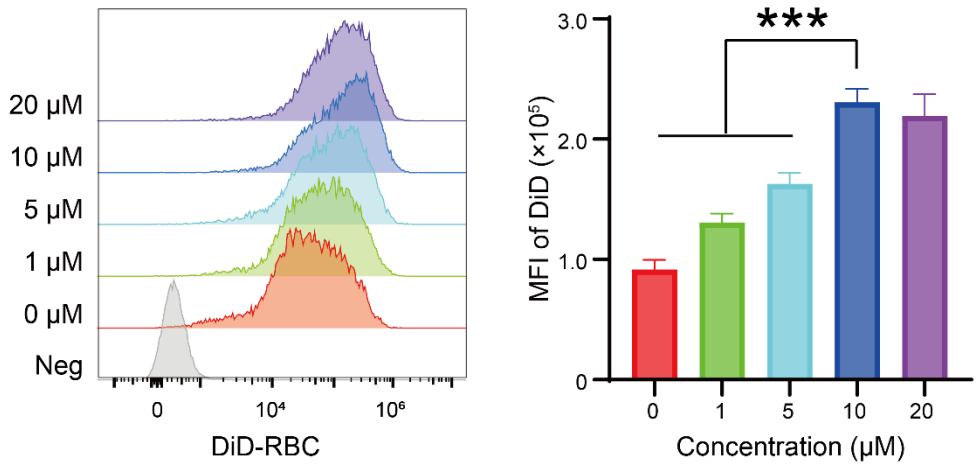

Figure S1. Flow cytometry histogram and quantitative analysis of MFI of engulfed fluorescent-labeled erythrocytes in BV2 cells with different concentrations of desmosterol treatment followed by 2 h incubation with DiD-labeled RBCs (n = 3). All data are presented as means ± SD. * versus indicated groups, *** $P < 0.001$.

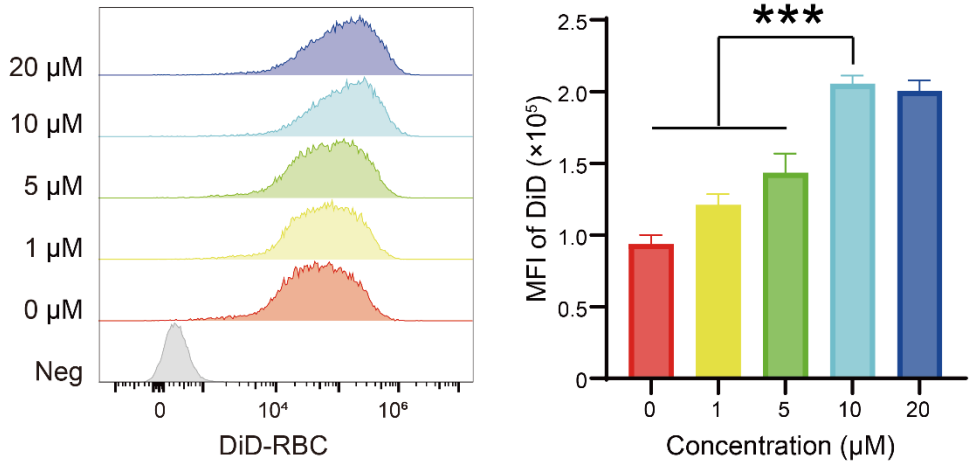

Figure S2. Flow cytometry histogram and quantitative analysis of MFI of engulfed fluorescent-labeled erythrocytes in BV2 cells with different concentrations of GW280264X treatment followed by 2 h incubation with DiD-labeled RBCs (n = 3). All data are presented as means ± SD. * versus indicated groups, *** $P < 0.001$.

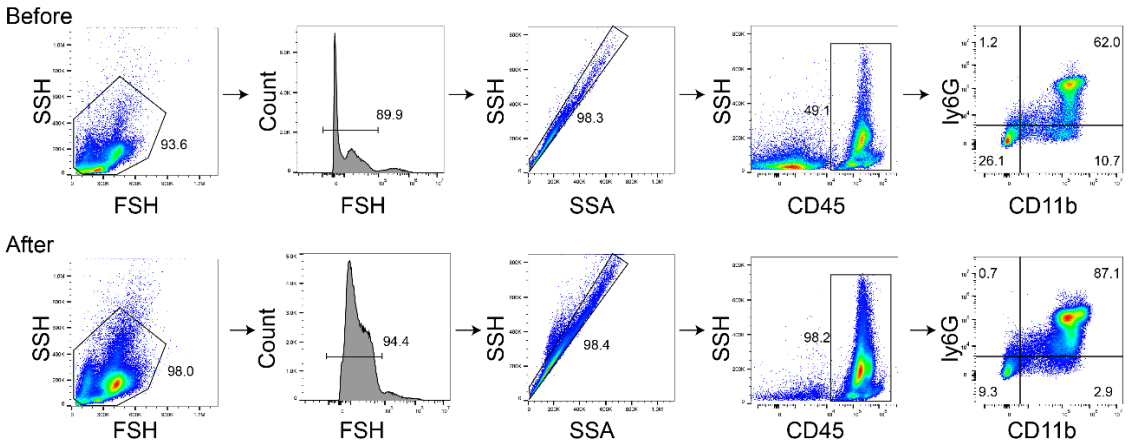

Figure S3. Flow cytometric analysis of the ratios of neutrophils in the cells isolated from bone marrow of C57BL/6 mice through Histopaque 1119/1077 gradient centrifugation.

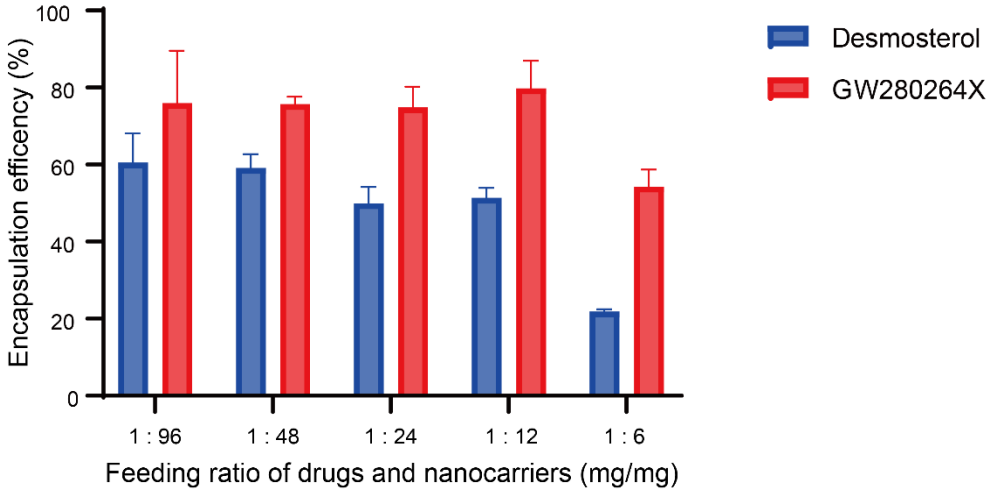

Figure S4. Encapsulation efficiency of D&G@NPEOz at different ratios of drugs and nanocarriers. The molar ratio of desmosterol/GW280264X was 1:1. All data are presented as means ± SD.

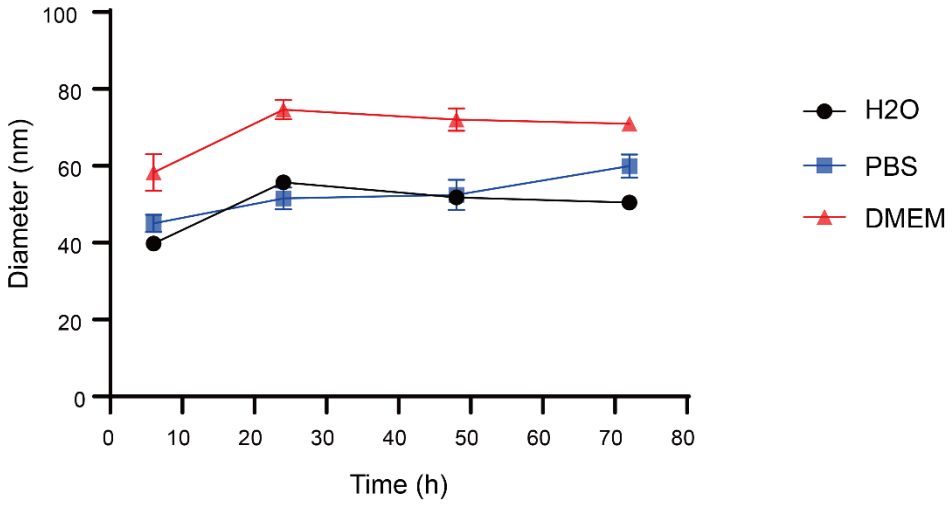

Figure S5. The stability of D&G@NPEOz in H_2O, PBS and DMEM respectively.

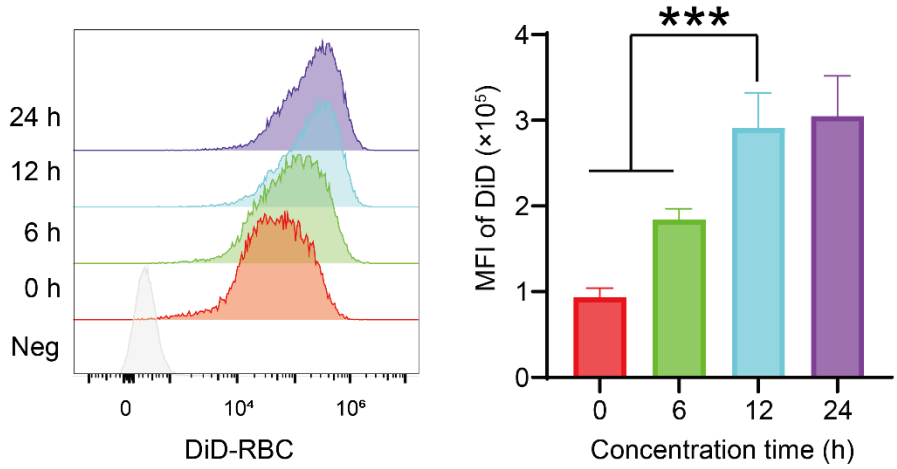

Figure S6. Flow cytometry histogram and quantitative analysis of MFI of engulfed fluorescent-labeled erythrocytes in BV2 cells after different treatment time with D&G@NPEOz followed by 2 h incubation with DiD-labeled RBCs (n = 3). All data are presented as means ± SD. * versus indicated groups, *** $P < 0.001$.

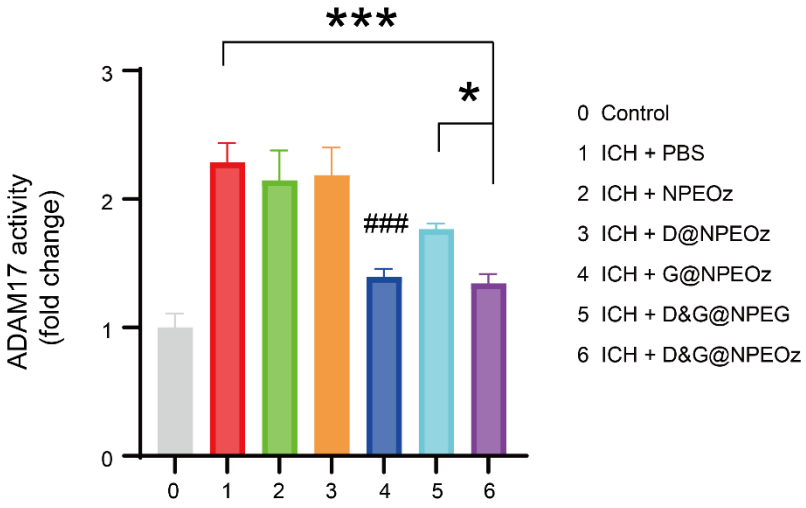

Figure S7. Quantitative analysis of ADAM17 activity in BV2 cells with different formulations treatment (n = 3). All data are presented as means ± SD. # versus ICH+ PBS group, ### $P < 0.001$; * versus indicated groups, *$P < 0.05$, *** $P < 0.001$.

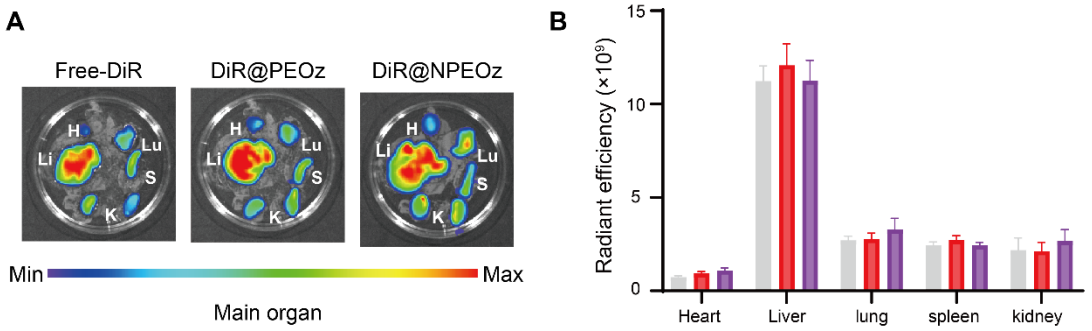

Figure S8. (A) *Ex vivo* images of main organs (H for heart, Li for liver, Lu for lung, S for spleen, K for kidney) at 12 h from ICH mice administrated with free DiR, DiR@PEOz, DiR@NPEOz. **(B)** Radiant efficiency of fluorescence intensity of major organs *ex vivo* at 12 h from ICH mice administrated with free DiR, DiR@PEOz, DiR@NPEOz (n = 3). All data are presented as means ± SD.

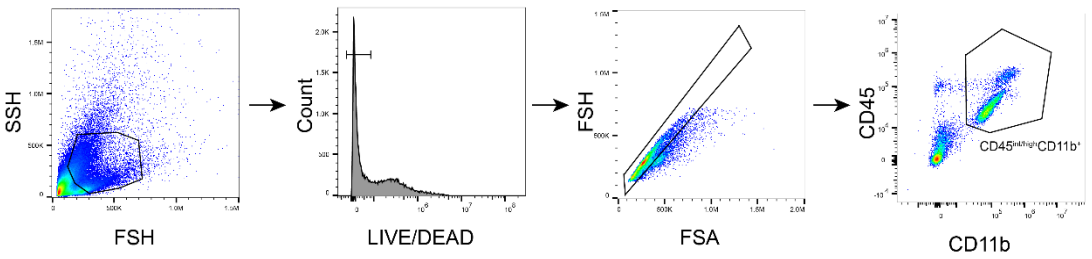

Figure S9. Gating strategy for analysis of erythrophagocytosis in vivo by flow cytometry.

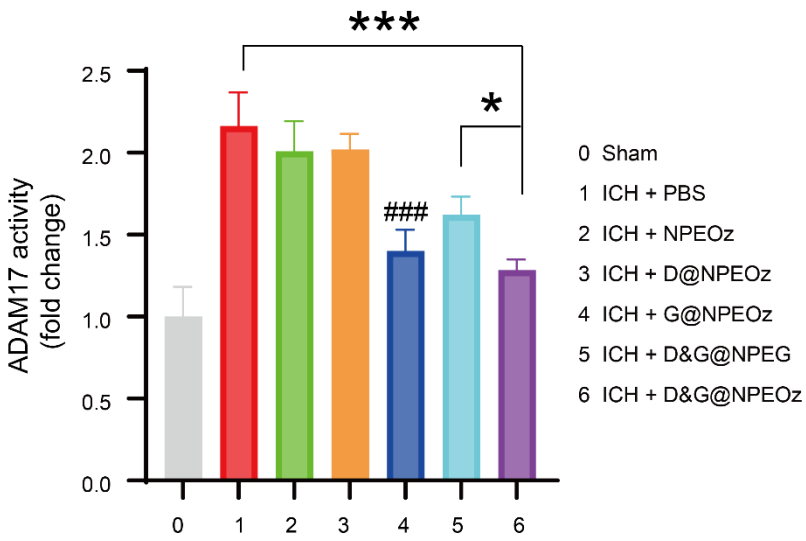

Figure S10. Quantitative analysis of ADAM17 activity in the hematoma region from the mice treated with different formulations at the day 3 post ICH (n = 4). All data are presented as means ± SD. # versus ICH+ PBS group, ### $P < 0.001$; * versus indicated groups, *$P < 0.05$, *** $P < 0.001$.