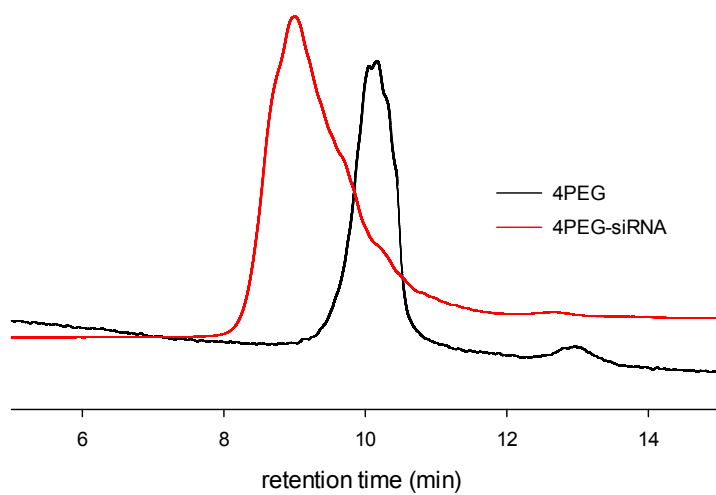
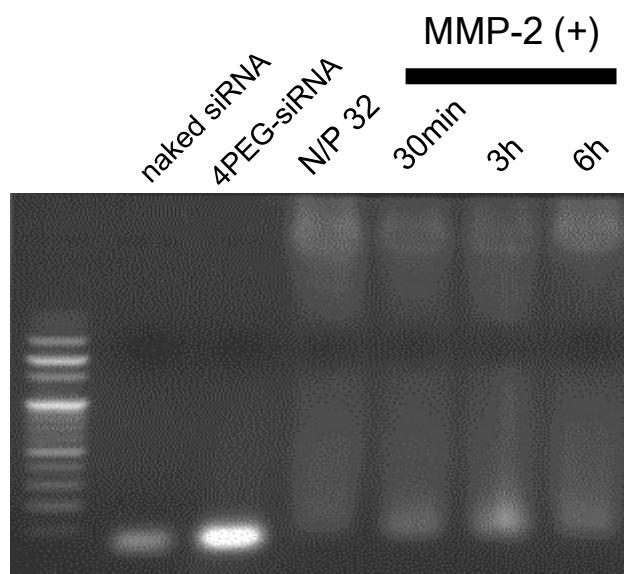


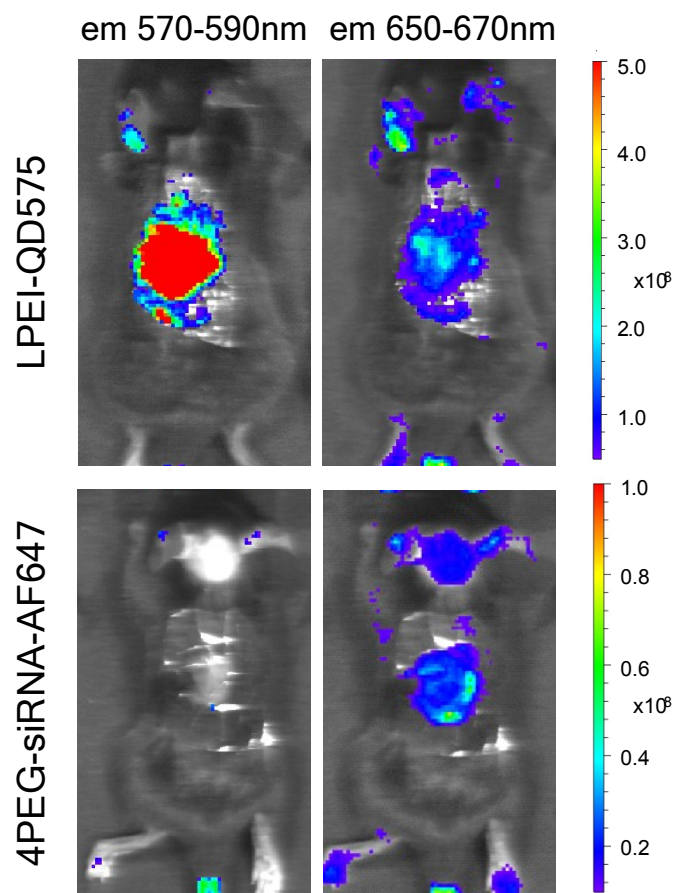
### Supplementary Information



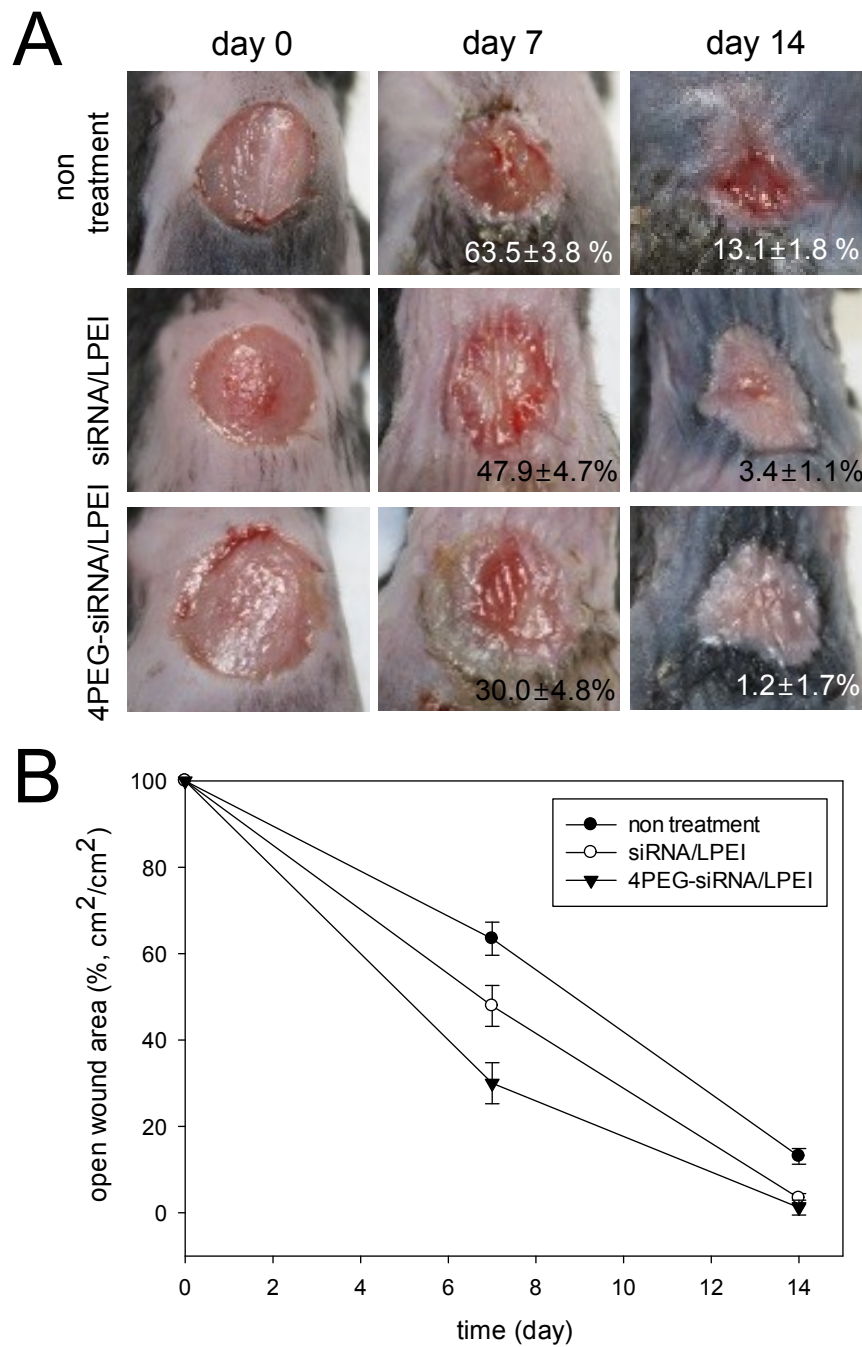
**Figure S1.** GPC result of the 4-arm PEG and the 4PEG-siRNA conjugate.



**Figure S2.** Gel retardation result of the 4PEG-siRNA/LPEI cluster at N/P ratio of 32 (N/P 32). The cluster was incubated in MMP-2 (2.5 $\mu$ g/ml) for 6h and subjected to gel retardation assay.



**Figure S3.** IVIS images of controls at different emission filters (em 570-590nm for QD575 and em 650-670nm for AF647). The excitation wavelength was 450nm. The wound treated only with LPEI-QD575 showed strong fluorescence signal at em 570-590nm while that treated with 4PEG-siRNA-AF647 showed fluorescence signal at em 650-670nm, suggesting that the fluorescence signal of the cluster could be monitored at different emission filters by comparing with the respective fluorescence intensities of controls.



**Figure S4.** (A) Photo of wound recovery in diabetic mice. Open wound area (%) was marked in the respective images. (B) Wound recovery rate of diabetic ulcers in C57BL/6 mice at day 7 and 14. Wound recovery rate was calculated by comparing the open wound area at day 0.