# Supporting Information

# Use of RGD-Engineered Exosomes for Enhanced Target and Synergistic Therapy toward Angiogenesis

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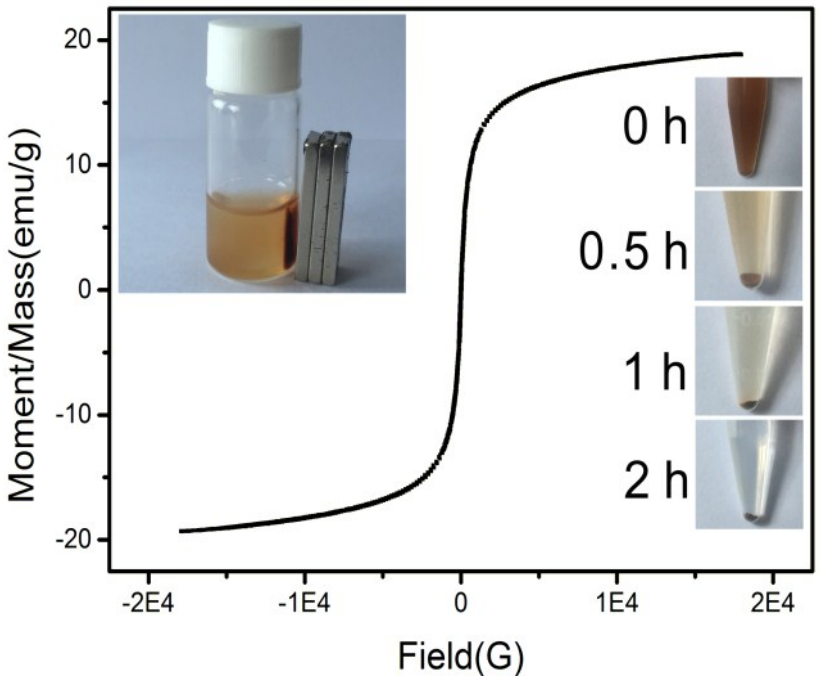


**Figure S1.** Magnetization curves of our biomimetic particles at room temperature. Insert picture shows photographs of macrophages pellets after different incubation times (0h, 0.5h, 1h, 2h) with SPIONs and particles obtained at 1.5 h of incubation with SPIONs can be attracted by an external magnetic field in aqueous solution.

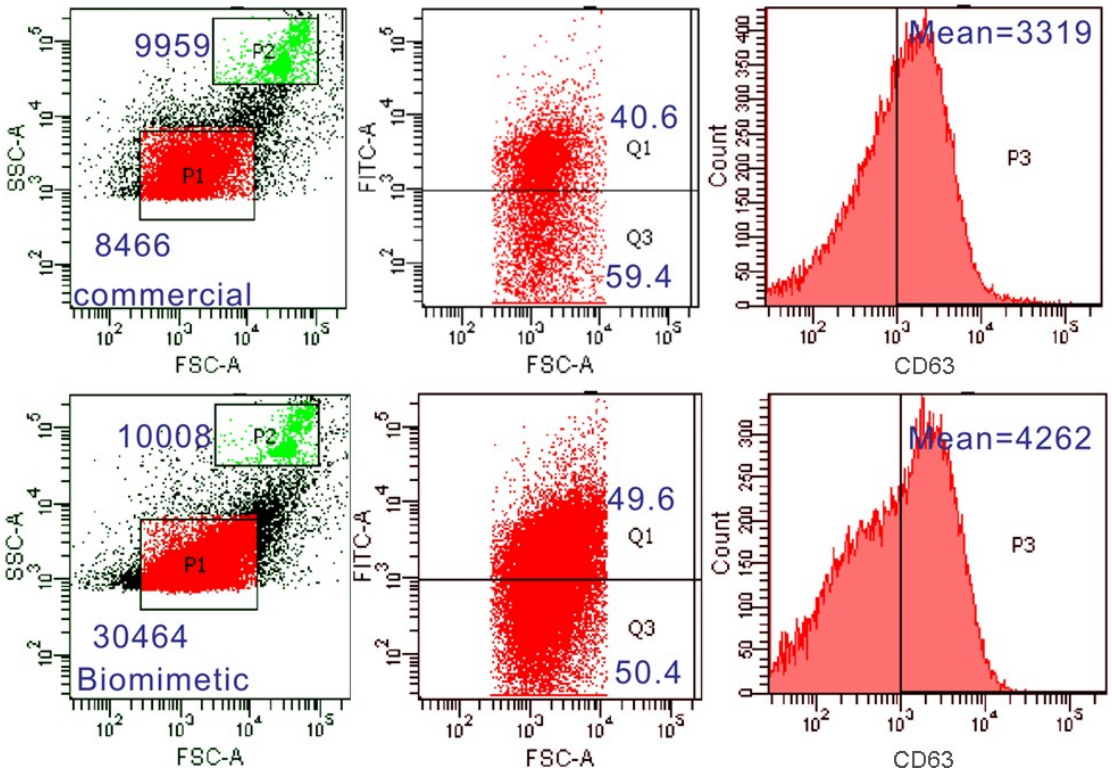


**Figure S2.** FACs analysis of exosomes, markers of the exosomes is confirmed by flow cytometry to test the specificity of the exosome captured by biomimetic particles. Standard microbeads with a diameter of 300 nm were used to set the upper size limit for the exosomes and were used to gate the exosomes. Exosomes stained with anti-CD63 were analyzed by flow cytometry. Panels 2 show the microbeads gating (300 nm) and Panels 3 show CD63 expression analyses, respectively.

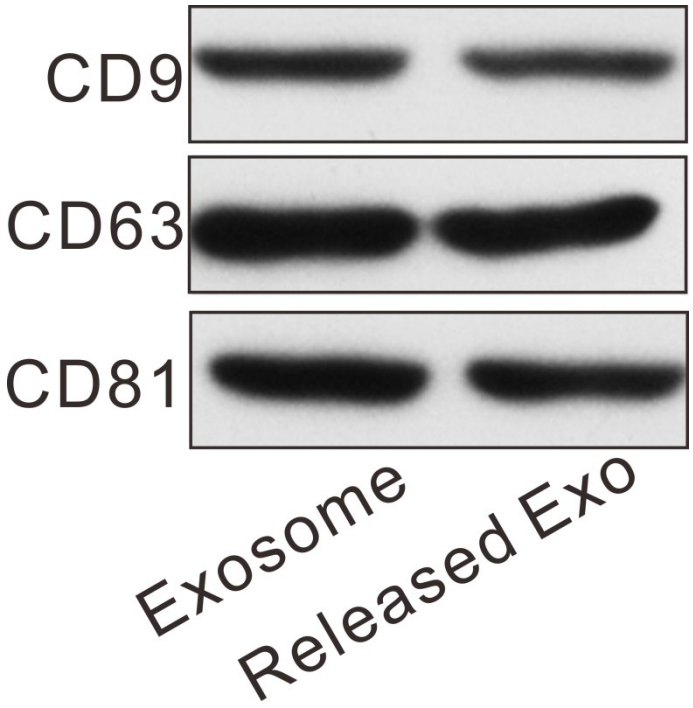


**Figure S3**. Western blot analysis of specific exosome marker proteins (CD9, CD63 and CD81) in exosomes released from the biomimetic particles.

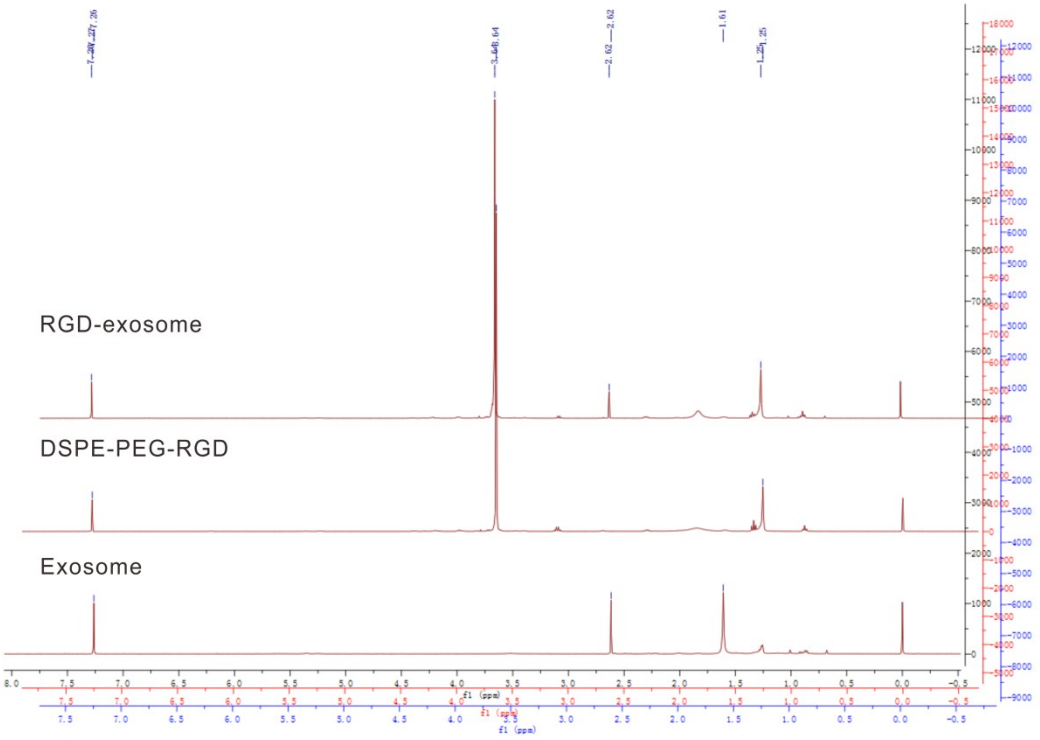


**Figure S4**. NMR spectra of exosome, DSPE-PEG-RGD and RGD-exosome.

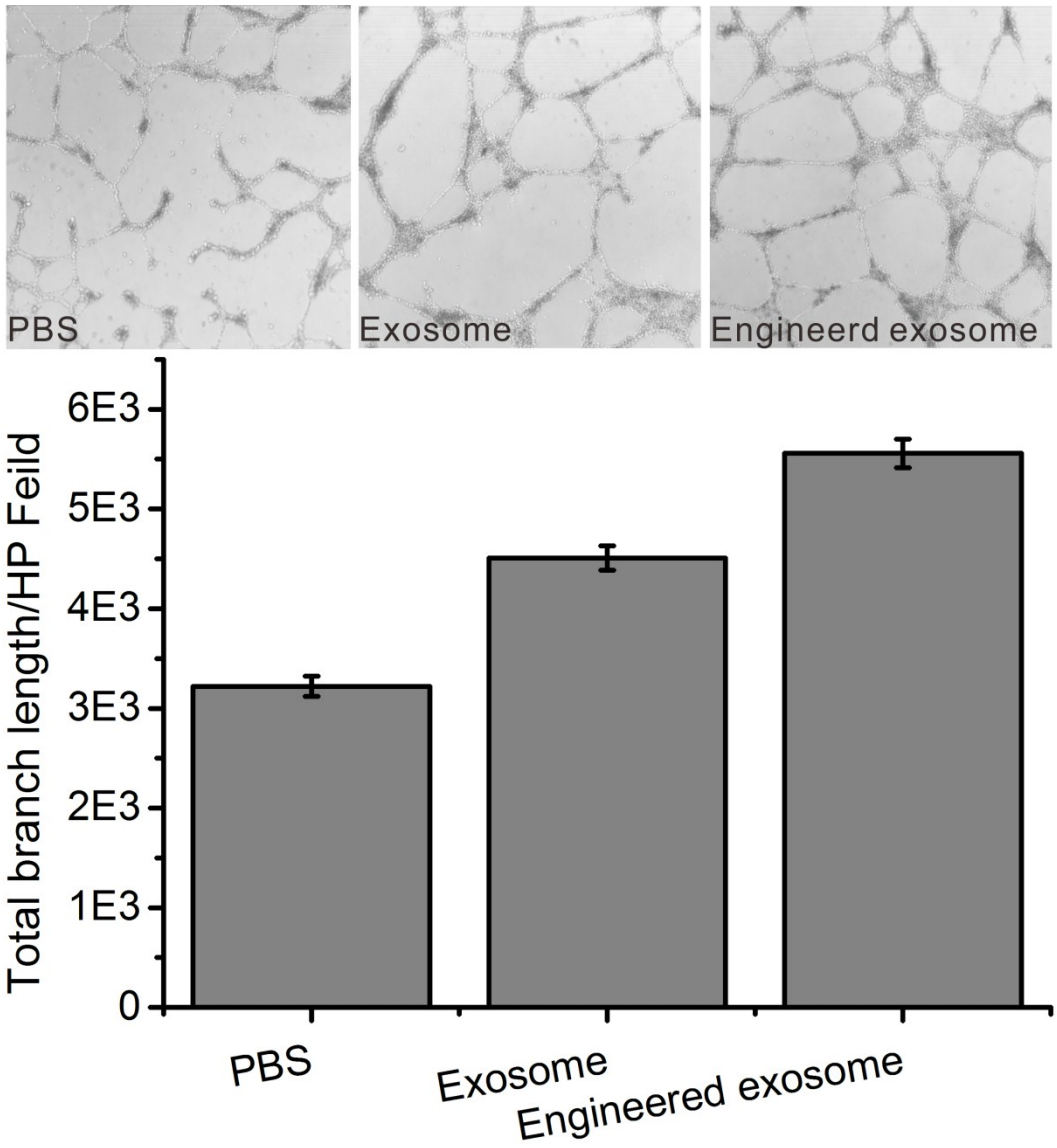


**Figure S5**. Injection of exosome and engineered exosome (RGD-$Ac_4$ManNAz-exosome) induced ectopic SIVs in zebrafish. Vessels were stained with alkaline phosphatase (AP) at 72 hpf. Embryos injected with PBS were used as a negative control.

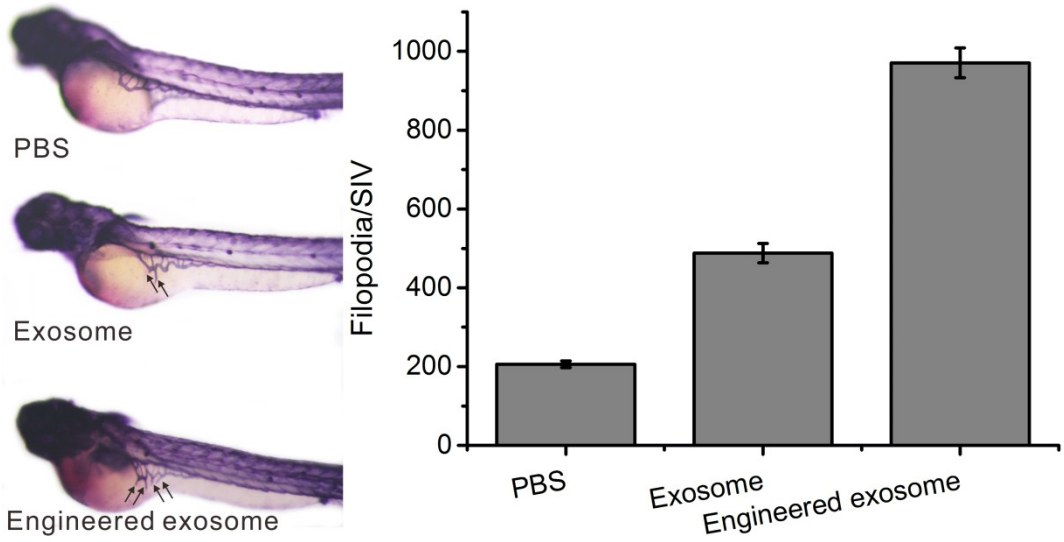


**Figure S6**. Injection of exosome and engineered exosome (RGD-$Ac_4$ManNAz-exosome) induced ectopic SIVs in zebrafish. Vessels were stained with alkaline phosphatase (AP) at 72 hpf. Embryos injected with PBS were used as a negative control.