Supporting Information

Engineered biomimetic nanovesicles show intrinsic anti-inflammatory properties for the treatment of inflammatory bowel diseases

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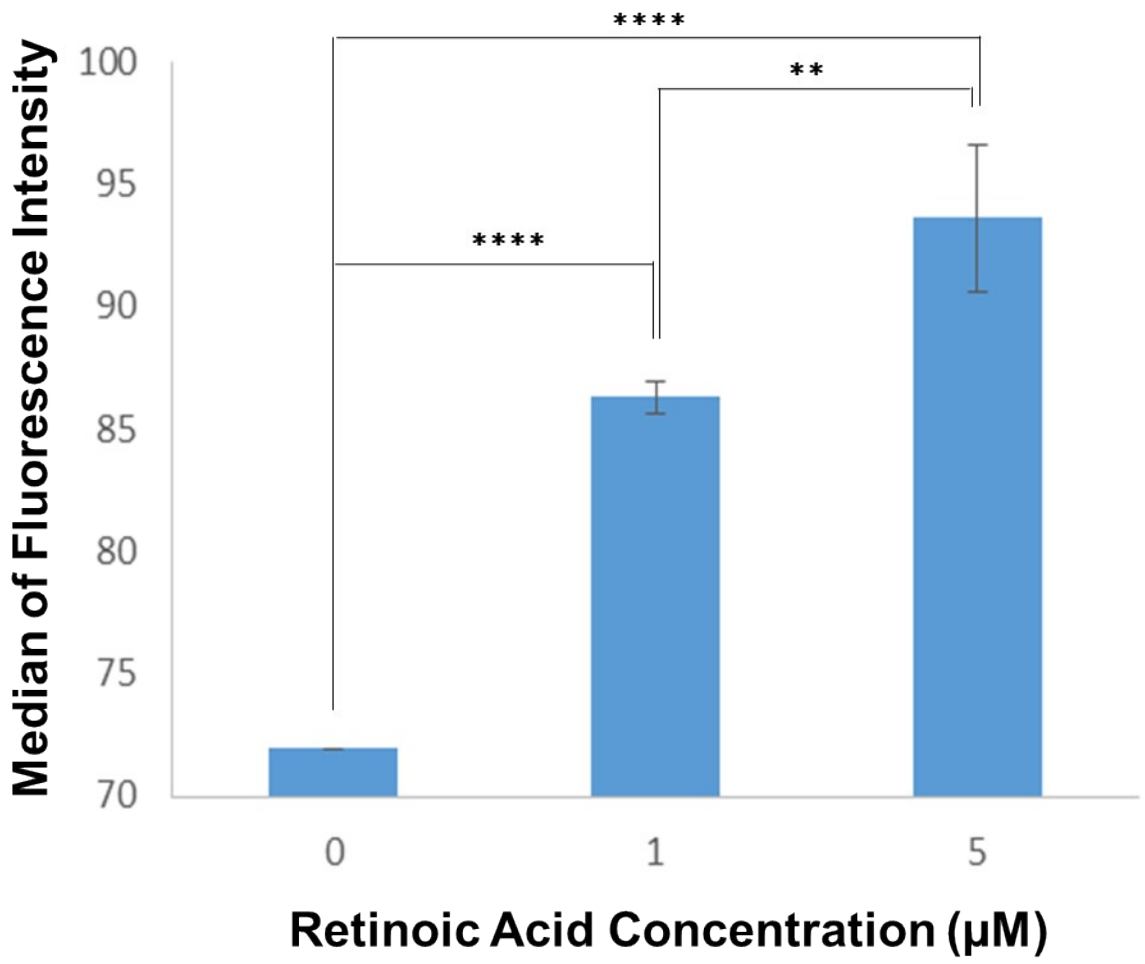

Figure S1. Choice of retinoic acid concentration to induce α4β7 overexpression. To enhance the GI-targeting abilities of the SLKs, primary immune cells were stimulated with retinoic acid prior to membrane proteins extraction and preparation of nanoparticles. Flow analysis was used to determine the levels of α4β7 integrin presentation by stimulation of cells with different concentration of retinoic acid. When cells are stimulated with retinoic acid, they show higher levels of the integrin both for 1 and 5 µM compared to non-stimulated cells (0 µM). The results are presented as MFI (Median of Fluorescence Intensity) ± standard deviation. **** $p<0.0001$; **$p<0.01$.

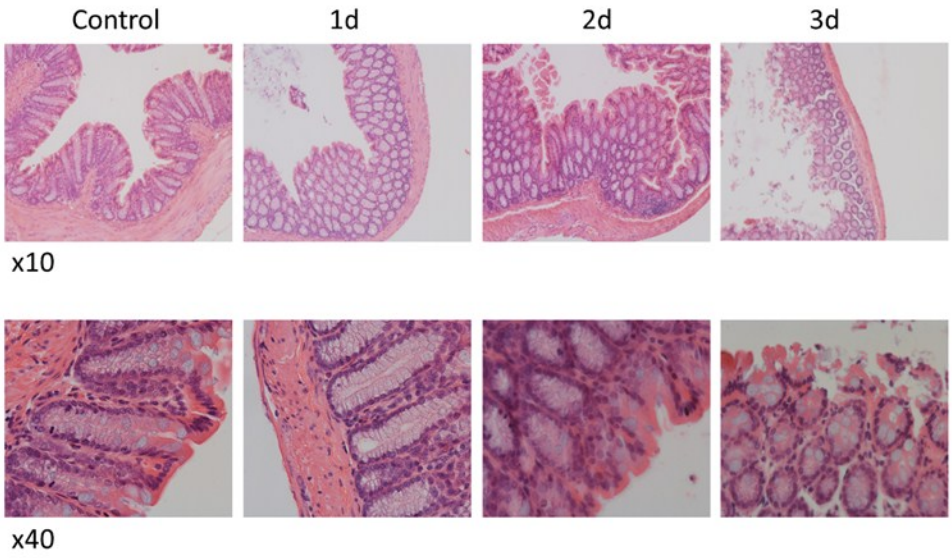

Figure S2. Histopathological evaluation of colons after DSS treatment. Histopathological analysis of colons from DSS-treated mice (4% w/v) harvested at day 1, 2, and 3 after DSS hydration.

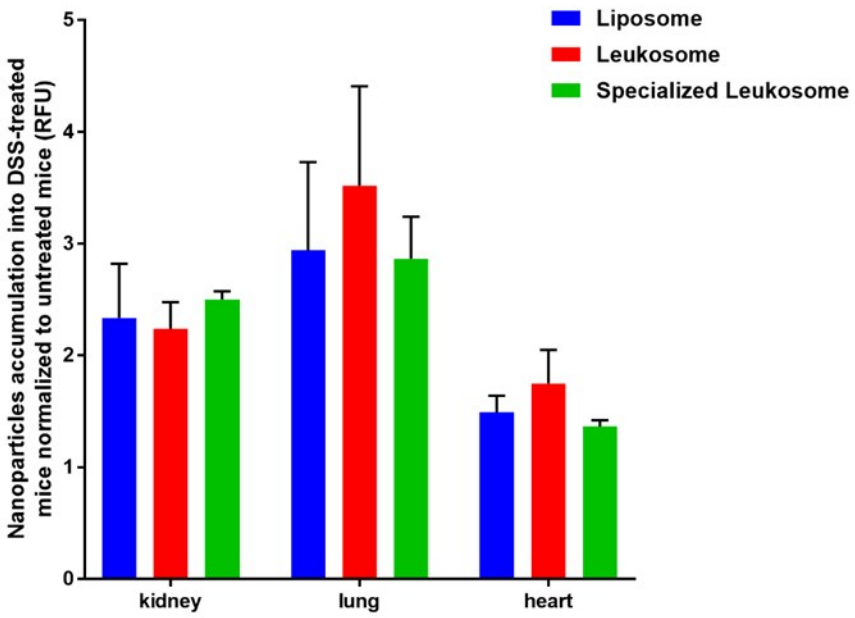

Figure S3. Evaluation of nanoparticles biodistribution in DSS-treated mice. Nanoparticles' biodistribution in kidney, lung, and heart is illustrated. Nanoparticles fluorescence was investigated into the organs of interest in DSS-treated mice. Results are reported as RFU normalized to healthy mice.