

Supporting Information

In-situ forming injectable silk hydrogel with cocktail of chemotherapeutic drugs for simultaneous targeting of cancer cells and cancer stem cells

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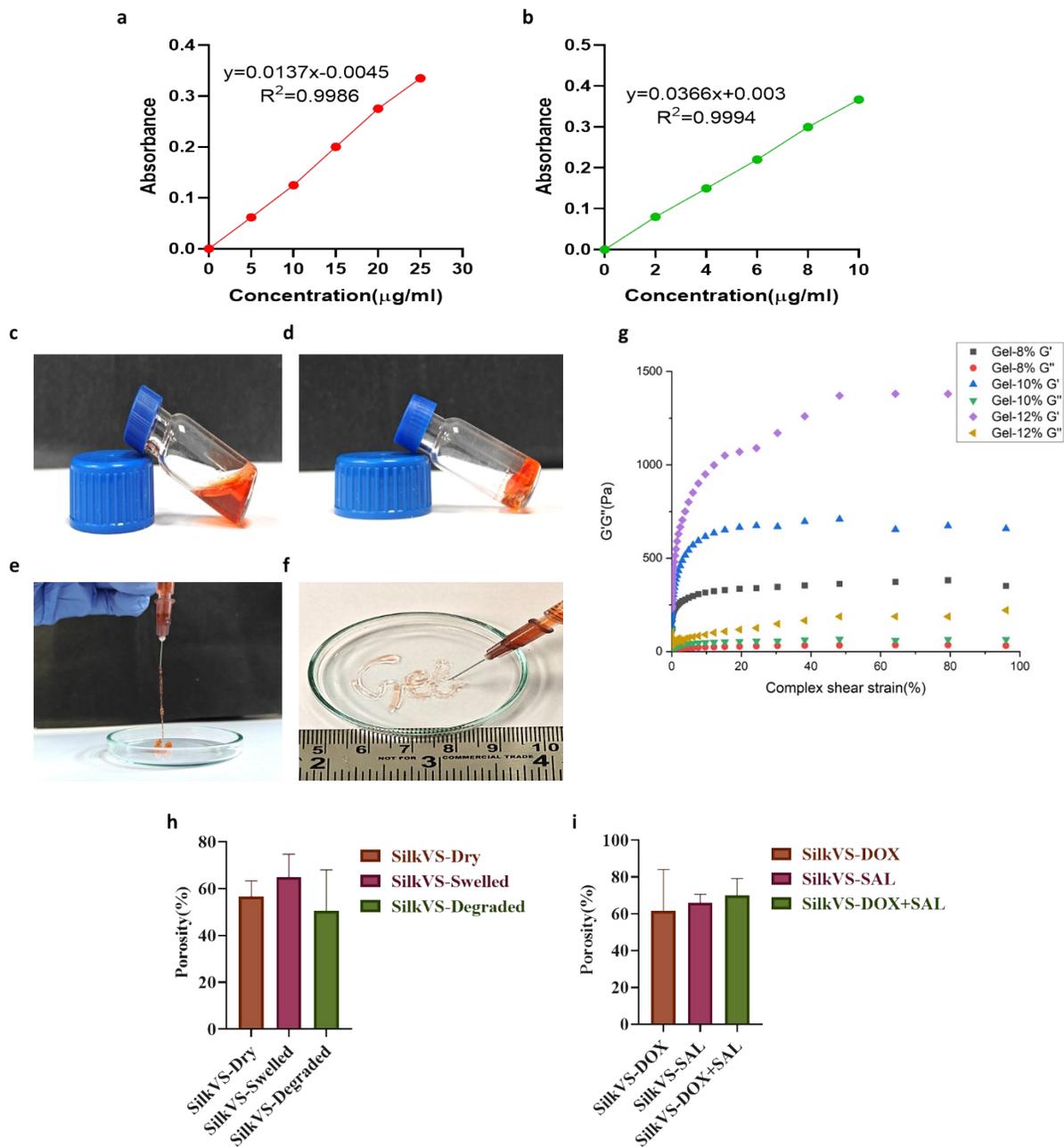


Figure.SI.1. (a) Standard plot of DOX, generated by using UV spectroscopy, (b) Standard plot of SAL, generated by using UV spectroscopy, (c,d) Tube inversion study of SilkVS-DOX+SAL, (e,f) Injectability and writability of SilkVS-DOX+SAL hydrogel, (g) Amplitude sweep of various concentration of SilkVS hydrogels, (h) % porosity of SilkVS-dry, swelled and degraded hydrogel samples.

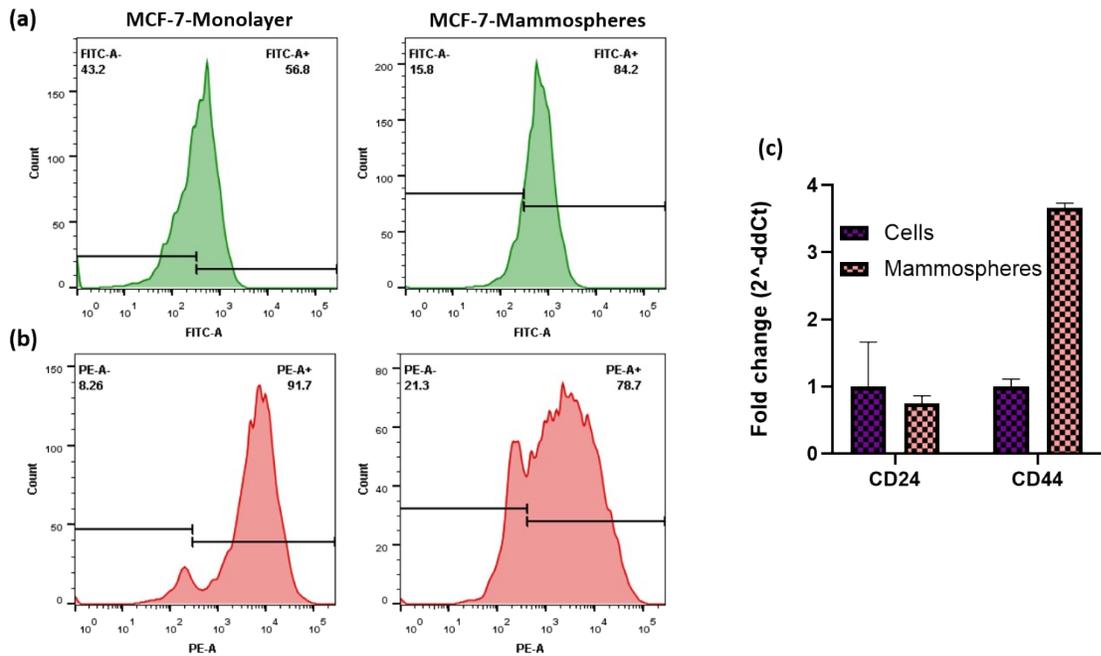


Figure.SI.2. Characterization of MCF-7 monolayer and mammosphere for cell surface markers by flow cytometry (a) Histogram showing CD44⁺ status (b) Histogram showing CD24⁺ status (c) RT-PCR analysis showing the gene expression of CD44⁺/ CD24⁺ in cells (MCF-7) and mammospheres.

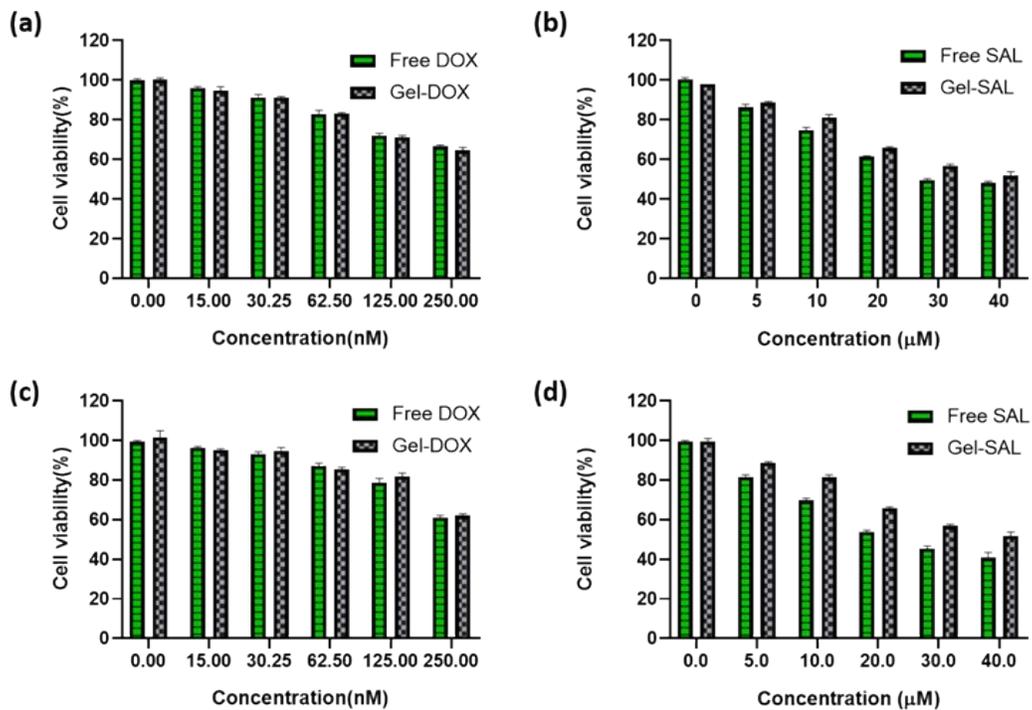


Figure.SI.3. (a,c) Cellular viability (%) of MCF-7 on non-bCSCs and bCSCs respectively treated with Free DOX and Gel-DOX for 48 h (b,d) Cellular viability (%) of MCF-7 on non-bCSCs and bCSCs respectively treated with Free SAL and Gel-SAL for 48 h.

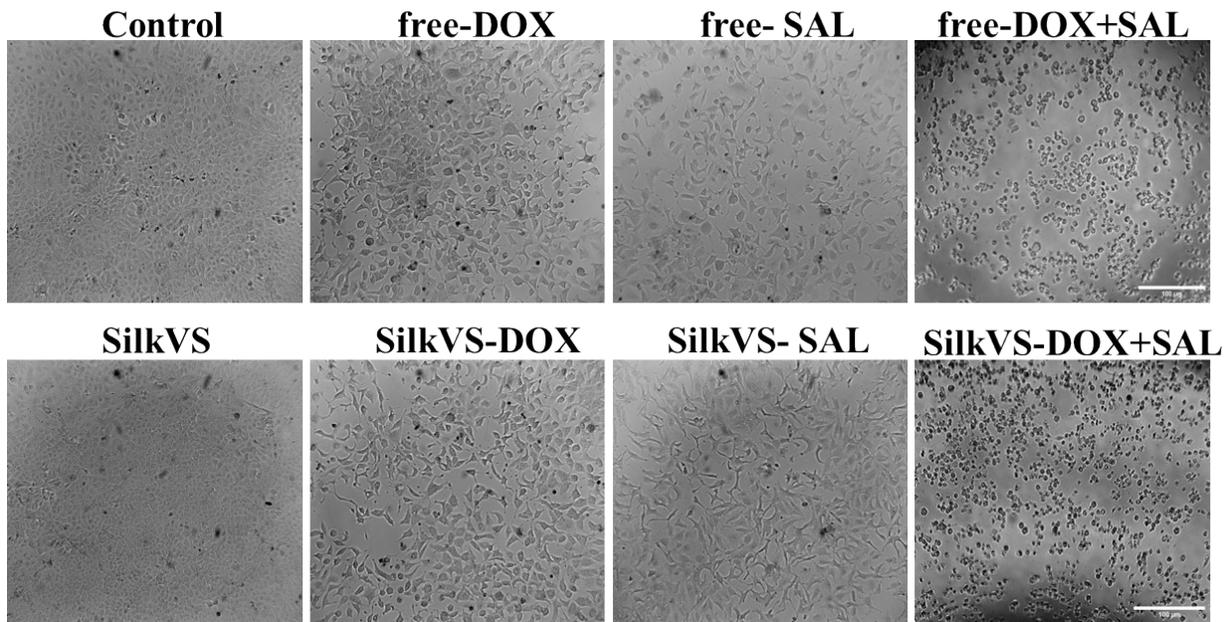


Figure.SI.4. Bright field microscopy images of MCF-7 cells post treatment of 72 h with free-DOX, free-SAL, free-DOX+SAL, SilkVS-DOX, SilkVS-SAL and SilkVS-DOX+SAL. (Scale bar=100uM)

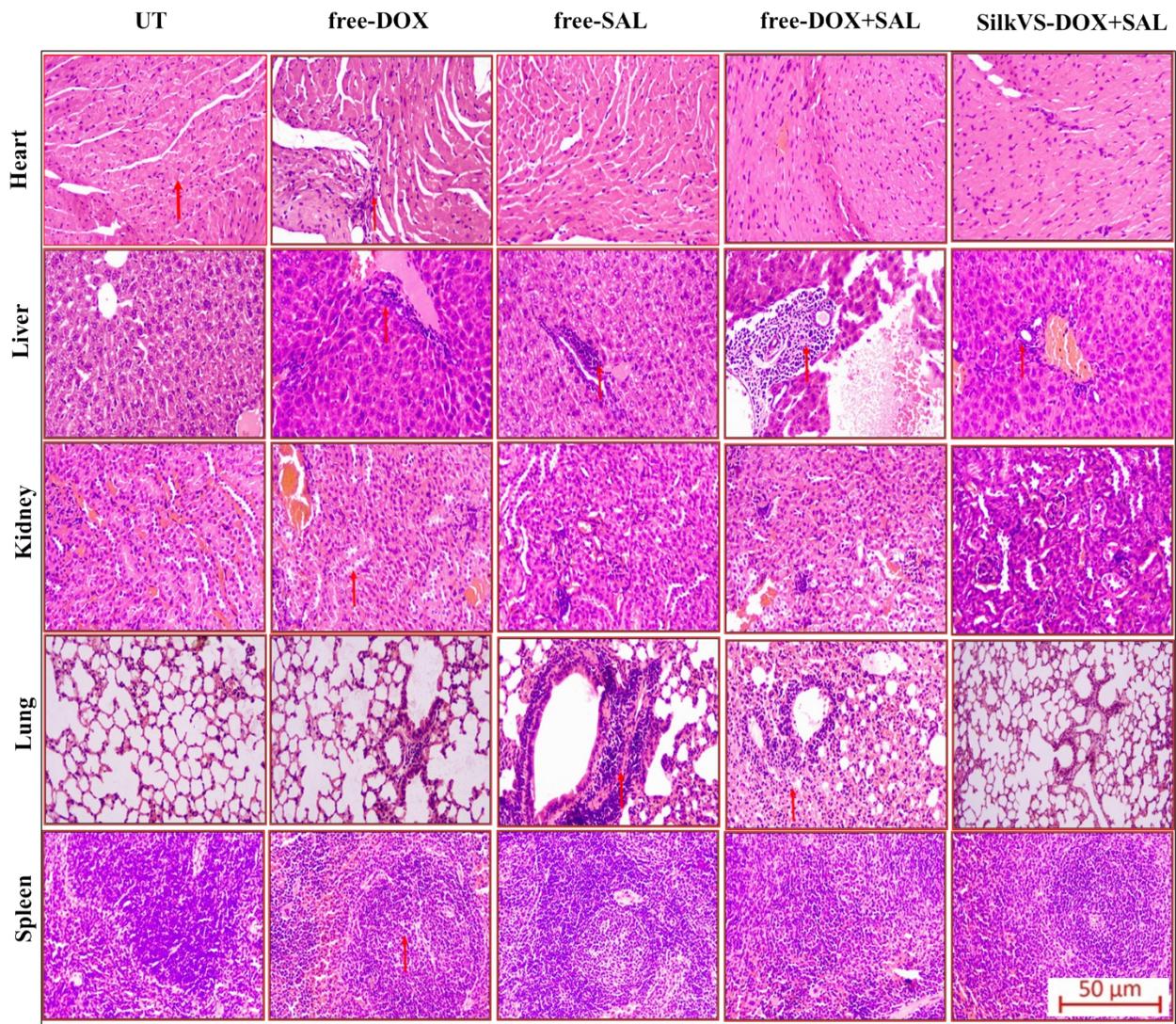


Figure.SI.5. Hematoxylin and eosin (H&E) staining and histopathological assessment of vital organs of 4T1 tumor-bearing mice receiving free drug and drug loaded hydrogel treatments.