Supplementary Materials

Hydrogel Depot for Sustained Antibody Release Improves Immune Checkpoint Blockade Cancer Immunotherapy

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**Supplementary Figure S1.** Stability of F127 and F127-BPEI hydrogel in DMEM containing 10% FBS at 37 °C.
Supplementary Figure S2. Schematic of F127-pSH synthesis method.
Supplementary Figure S3. $^1$H NMR of F127, F127-BPE, and F127-pSH in D$_2$O.
**Supplementary Figure S4.** Temperature- and concentration-dependent sol-gel transition of F127 and F127-BPEI.

**Supplementary Figure S5.** Quantification of weight density of polymer thiol groups in F127, F127-BPEI, and F127-pSH.
**Supplementary Figure S6.** Modulus of F127/PEG hydrogel at varying angular frequencies. (A) Storage modulus ($G'$) of F127/PEG hydrogel at angular frequency 1-10 rad s$^{-1}$. (B) Loss modulus ($G''$) of F127/PEG hydrogel at angular frequencies of 1-10 rad s$^{-1}$.

**Supplementary Table S1.** Sol-gel and gel-sol transition temperature of F127 and F127-BPEI.

| % (w/v) | Sol→gel transition temperature / Gel→separation transition temperature | F127          | F127-BPEI     |
|---------|-------------------------------------------------------------------------|---------------|---------------|
| 1       | Not available (N.A.)                                                   | N.A.          | N.A.          |
| 5       | N.A.                                                                   | N.A.          | N.A.          |
| 10      | N.A.                                                                   | N.A.          | N.A.          |
| 15      | N.A.                                                                   | 26 °C / 62 °C | N.A.          |
| 17.5    | 36 °C / 48 °C                                                          | 24 °C / 65 °C |               |
| 20      | 24 °C / 64 °C                                                          | 22 °C / 69 °C |               |
| 25      | 22 °C / 76 °C                                                          | 20 °C / 98 °C |               |