Supplementary Material

Supplementary Figure 1, Size distributions and zeta potentials of the (A) 4 kDa, (B) 70 kDa, and (C) 150 kDa dextrans.

Supplementary Figure 2, Cell growth curves after 70 kDa dextran treatment. Tested cell lines: (A) MIA PaCa-2 and (B) BxPC-3. Error bars indicate the mean and SD, n=6.

Supplementary Figure 3, Characterization of DEX-TP. (A) Desalting of TP succinate. The absorption was measured at 218 nm. (B) Size distribution and zeta potential of DEX-TP. (C) Drug release of DEX-TP in esterase-free DMEM solution (black) and 10 U/mL pig liver esterase (PLE)-containing medium. Error bars indicate the mean and SD, n=3.
**Supplementary Figure 4.** IC\textsubscript{50} values of TP and DEX-TP in different cell lines.

| Cell line               | IC\textsubscript{50} (TP) | IC\textsubscript{50} (DEX-TP) | Deposition efficiency |
|-------------------------|---------------------------|-----------------------------|----------------------|
| KRAS mutant cells       |                           |                             |                      |
| MIA PaCa-2              | 10 nM                     | 170 nM                      | 5.9                  |
| Panc-1                  | 31 nM                     | 389 nM                      | 8.0                  |
| HEK293T epithelial cells| 5 nM                      | 368 nM                      | 1.4                  |
| NIH3T3 fibroblasts      | 15 nM                     | 7400 nM                     | 0.2                  |
| Jurkat T cells          | 5 nM                      | 873 nM                      | 0.6                  |
| Raji B cells            | 8 nM                      | 546 nM                      | 1.5                  |
| KRAS wild-type cells    |                           |                             |                      |
| BxPC-3                  | 12 nM                     | 603 nM                      | 2.0                  |
| BxPC-3 KRAS\textsuperscript{G12V} | 9 nM                     | 123 nM                      | 7.3                  |

**Supplementary Figure 5.** Dextran uptake of 20 kDa (up) and 40 kDa (down) with (red) or without (black) 50 μM EIPA (a macropinocytosis inhibitor) in multiple cell lines. Data are presented relative to the values obtained for NIH3T3 cells without EIPA. KRAS mutant cell (MIA PaCa-2, Panc-1); KRAS wild-type cell (BxPC-3, NIH3T3). Error bars indicate the mean and SD, n=3.