Supporting Information

A Drosera-bioinspired hydrogel for catching and killing cancer cells

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Figure S1. (A) Synthesis of the hydrogel. (B) Procedure of the bilayer hydrogel fabrication.



Figure S2. (A) Flow cytometry histogram showing the relationship of drug uptake versus time. Cells were harvested from the hydrogel at different cell residence time points. (B) SEM images of the cells on the Dox (+) hydrogel after 1-h and 12-h residence. Scale bars: 5 μ m.

| DNA | 5'-3' |
|--------------------------|--|
| Acrydite-ID ₁ | <i>Acrydite</i> -T*T*T*C*C*A*T*C*T*C*C*T*T*C*C*T*C*T*C*T* |
| ID ₁ | T*T*T*C*C*A*T*C*T*C*C*T*T*C*C*T*C*T*C*T* |
| CD1 | TCTAACTGCTGCGCCGCCGGGAAAATACTGTACGGTTAGATATATAGG AAGAAGAGAGGAAGGAGATGGAA |
| FAM-CD₁ | <i>FAM</i> -TCTAACTGCTGCGCCGGCGGAAAATACTGTACGGTTAGATATATAGGA AGAAGAGAGGAAGGAGATGGAA |
| Acrydite-ID2 | Acrydite-GCAGCAGCAGCAGCAAAA |
| ID ₂ | GCAGCAGCAGCAGCAAAA |
| CD ₂ | TTTTGCTGCTGCTGCTGC |
| Cy5.5-CD ₂ | <i>Cy5.5</i> -TTTTGCTGCTGCTGCTGC |

Table 1. DNA sequences.

* Phosphorothiolated base

ID: Immobilizing DNA

CD: *complementary DNA*

 CD_1 is the aptamer for cell catch.