## Supporting information.

## Designing dynamic surfaces for regulation of biological responses

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Equipment information

NMR: Bruker, Advance 500 MHz,

FT-IR: PerkinElmer, Spectrum 100

Atomic Force Microscope (AFM): Seiko Instruments, SPA300



Figure S1. Overall reaction scheme



aromatic), 7.4 ppm (t, 2H, aromatic), 3.5 ppm (m, 4H, -O-CH2-CH2-O-), 3.2 ppm (q, 2H, -CH2-NH-), 2.6 ppm (m, 4H, -OC-CH2-CH2-C-), 1.9 ppm (s, 3H, -C-CH3), end functionality = 78%.



Figure S3. <sup>1</sup>H NMR of 2. (500MHz, DMSO-d6:MeOD, 1:1)



Figure S4. AFM topological images taken in dry and water immersing states.



Figure S5. The relative amount of  $2^{nd}$  antibody for  $\gamma$ -chain binding antibody. The result of paired t-test \* shows p < 0.001