

# Rapid, Cost-effective Peptide/nucleic acid-based Platform for Therapeutic Antibody Monitoring in Clinical Samples

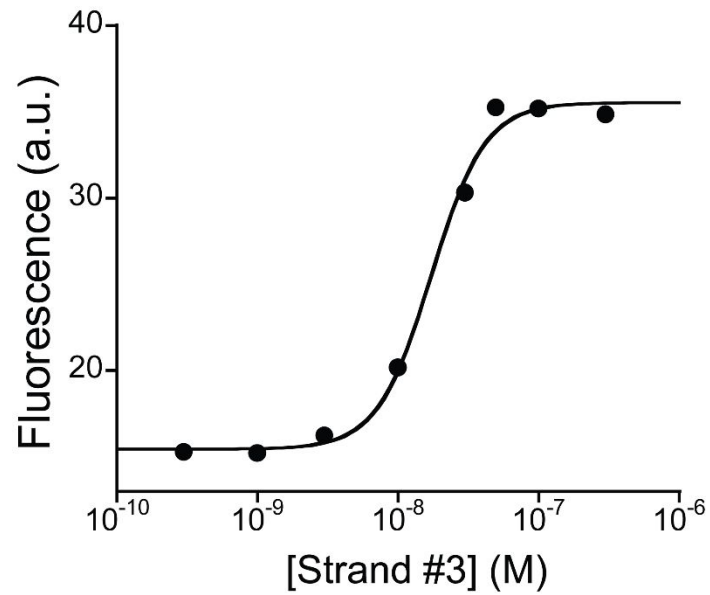
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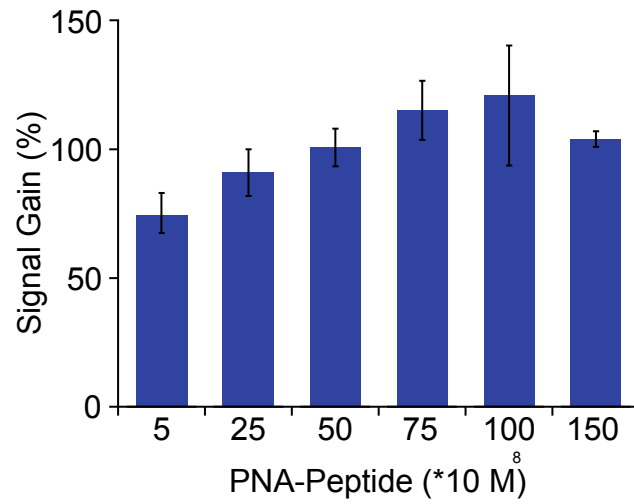
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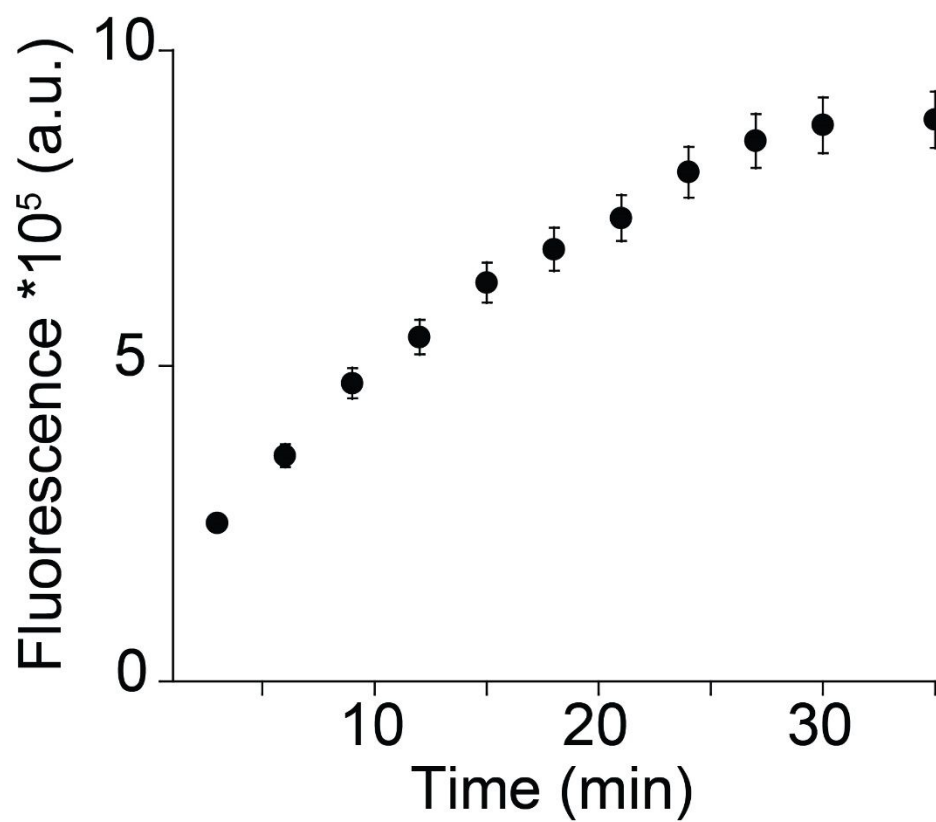
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**Figure S1i.** Fluorescent binding assays obtained by adding increasing concentrations of PNA-peptide chimera probe (Strand #3) to a fixed concentration of FAM/BHQ<sub>1</sub> labelled DNA probe (Control DNA probe). This probe has been selected because its sequence is identical to the green portion of Strand #1 and #2 (10 nM) that is responsible for the binding with Strand #3. The high affinity binding ( $K_d = 20$  nM) demonstrates the stoichiometric formation of the reporter (Strand #1 + Strand #3) and input modules (Strand #2 + Strand #3) at the experimental condition reported in the main text. Fluorescence experiments have been performed in 10% blood serum containing a fixed amount of control DNA probe (10 nM) at 25°C.



**Figure S12.** Fluorescence signal gains of NanoHybrid in the presence of 200 nM of Trastuzumab using different concentrations of PNA-peptide chimera probe (strand #3). Fluorescence experiments have been performed in 10% blood serum containing the reporter module (strand #1, 10 nM) and the concentration of the PNA-peptide probe (strand #3) here reported by adding increasing concentrations of strand #2 in the presence (200 nM) and absence of Trastuzumab at 25°C.



**Figure SI3.** Kinetics traces (fluorescence signal measured every 3 minutes) of NanoHybrid. Fluorescence experiments have been performed in 10% blood serum containing the reporter module (10 nM) and the input module (30 nM) by adding Trastuzumab (200 nM) at 25°C.