

Simple Screening Method for Double-strand DNA Binders Using Hairpin DNA-modified Magnetic Beads

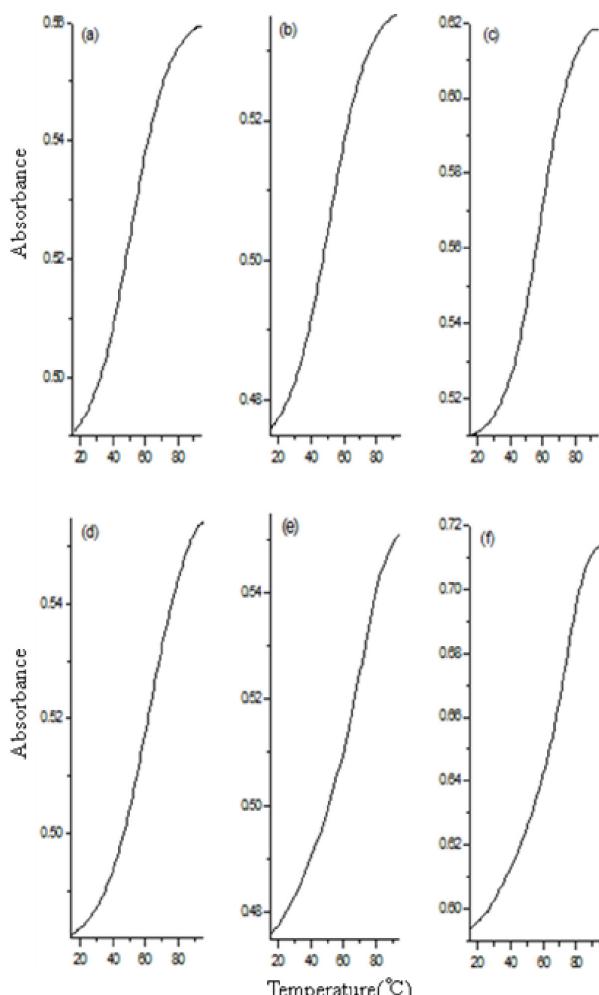
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| Materials | T _m (°C) |
|----------------|---------------------|
| None | 50.86 ± 0.15 |
| AQ2A | 50.88 ± 0.08 |
| 9AA | 58.18 ± 0.13 |
| DNR | 68.13 ± 0.15 |
| DAPI | 69.93 ± 0.06 |
| Four materials | 74.98 ± 0.12 |

Figure S1. Melting curves measured in 260 nm by a UV-Visible spectrophotometer. All samples were prepared in 1 mM HEPES buffer (pH 7.5): (a) 1 μM Hairpin DNA, (b) 1 μM Hairpin DNA + 1 μM AQ2A, (c) 1 μM Hairpin DNA + 1 μM 9AA, (d) 1 μM Hairpin DNA + 1 μM DNR, (e) 1 μM Hairpin DNA + 1 μM DAPI, and (f) 1 μM Hairpin DNA + 1 μM AQ2A + 1 μM 9AA + 1 μM DNR + 1 μM DAPI. Table: T_m values were at λ260 for the above mixtures. These were proportional to the binding affinity of the materials.

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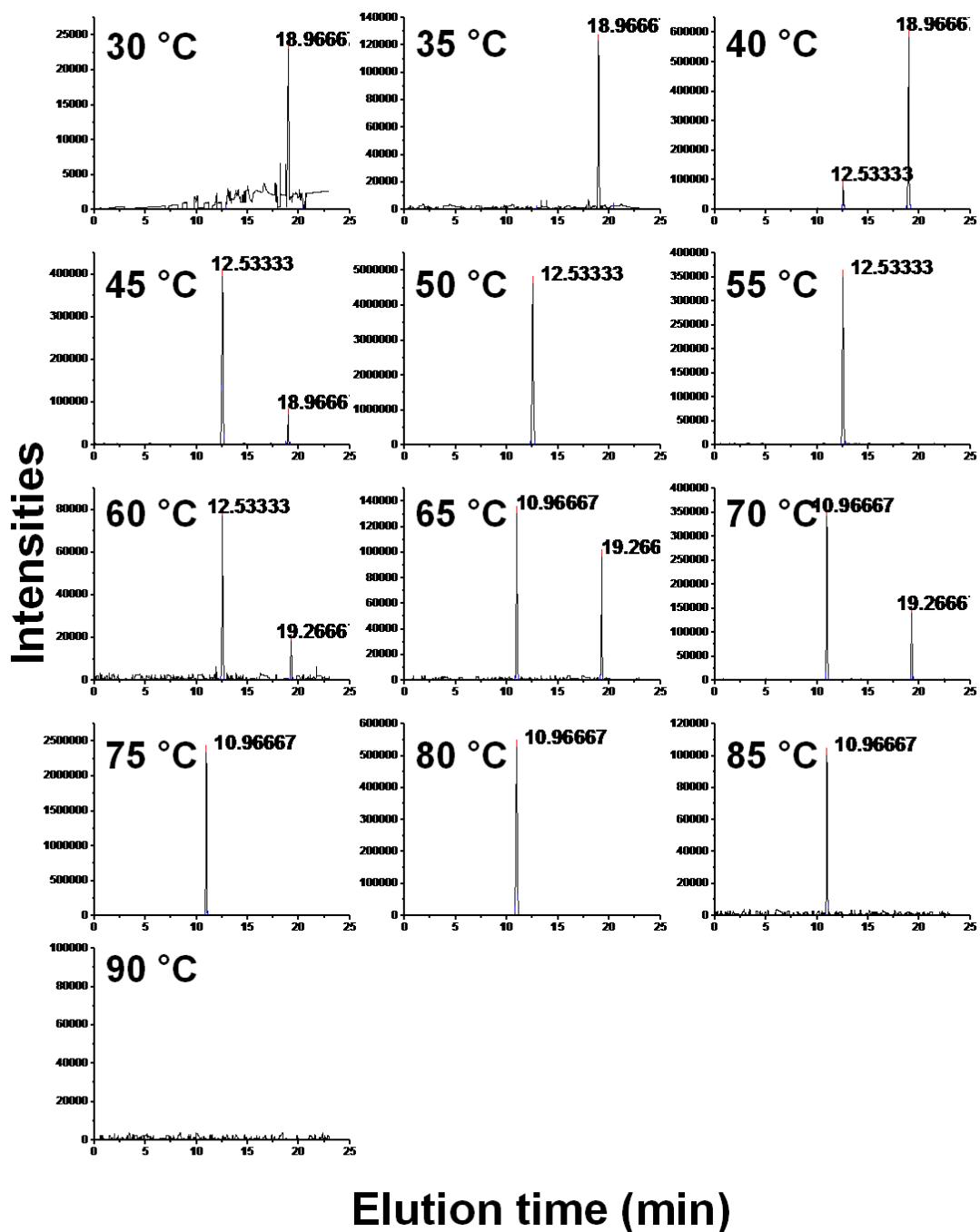


Figure S2. Elution profiles for temperature-dependant elution appearances of the magnetic particles with dsDNA binding materials using reverse-phase HPLC. The baseline signals of each plot were removed by origin program.

Table S1. Intensities of eluted samples with increased temperatures at λ_{220} .