

Supporting Information

**Simple and efficient room-temperature release of biotinylated nucleic acids from streptavidin
and its application to selective molecular detection**

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(Note: For all Supplementary Figures, lanes numbered in red were not shown in the manuscript, but may have been used in quantitative analyses)

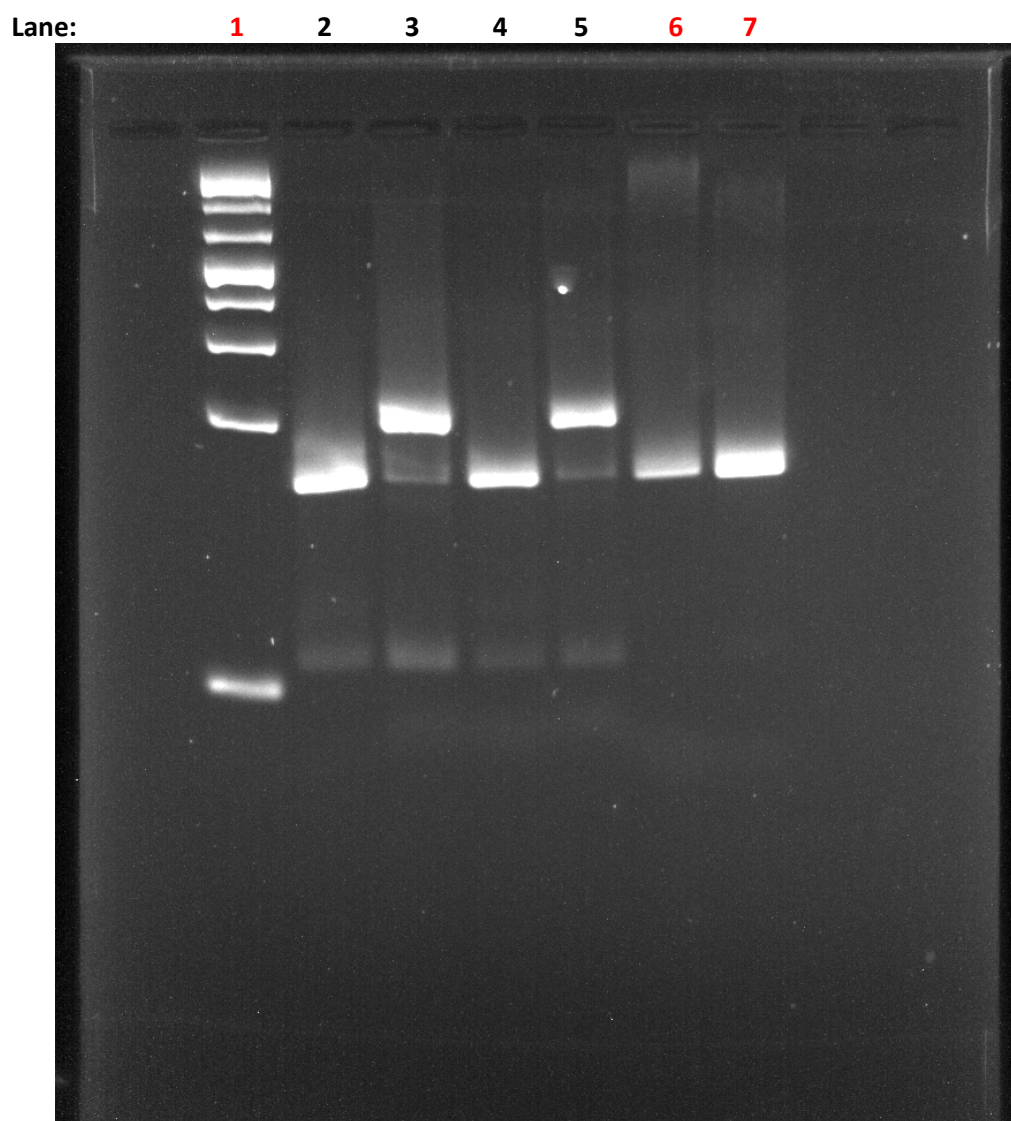


Figure S1. Lane 1: 1 kb ladder; Lanes 2-5: lanes shown in Figure 1c (left); Lanes 6-7: not used in manuscript.

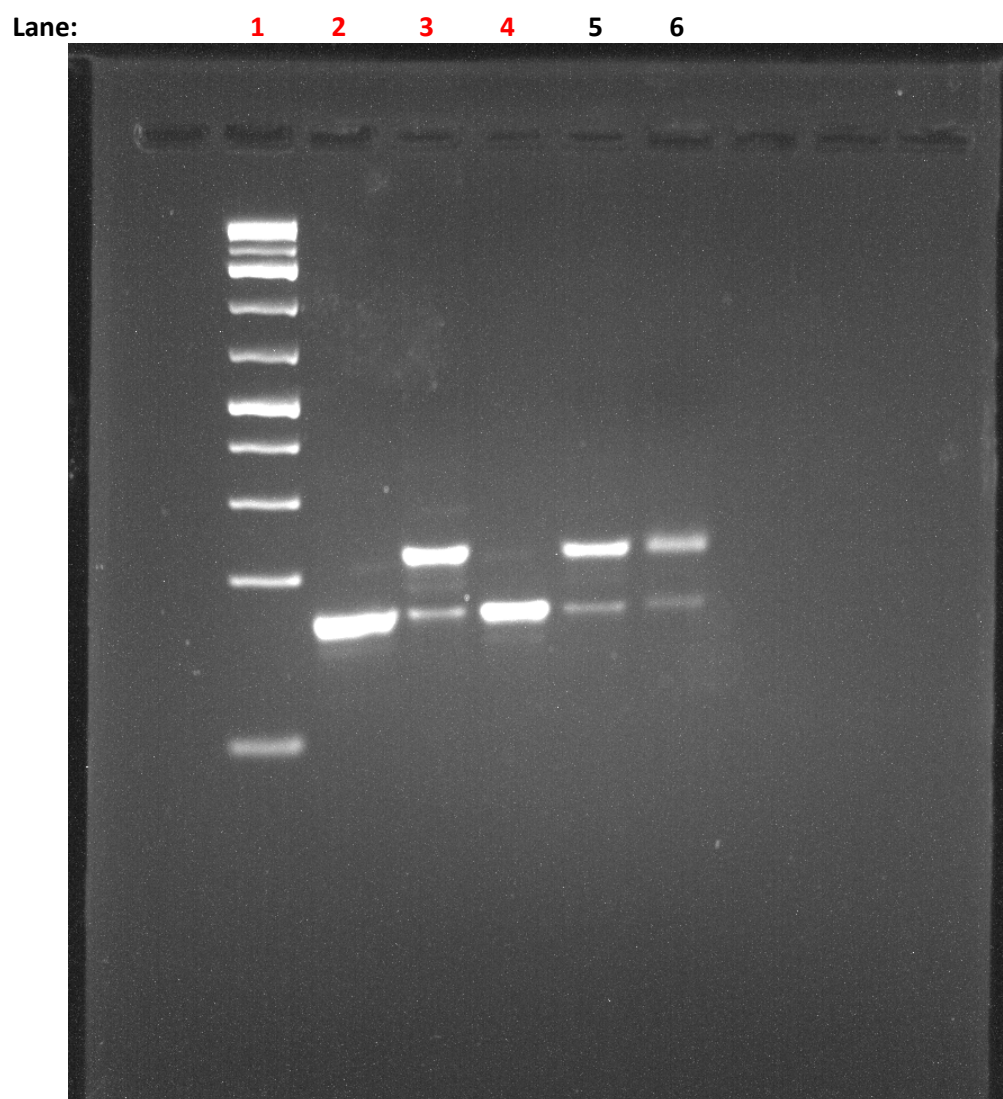
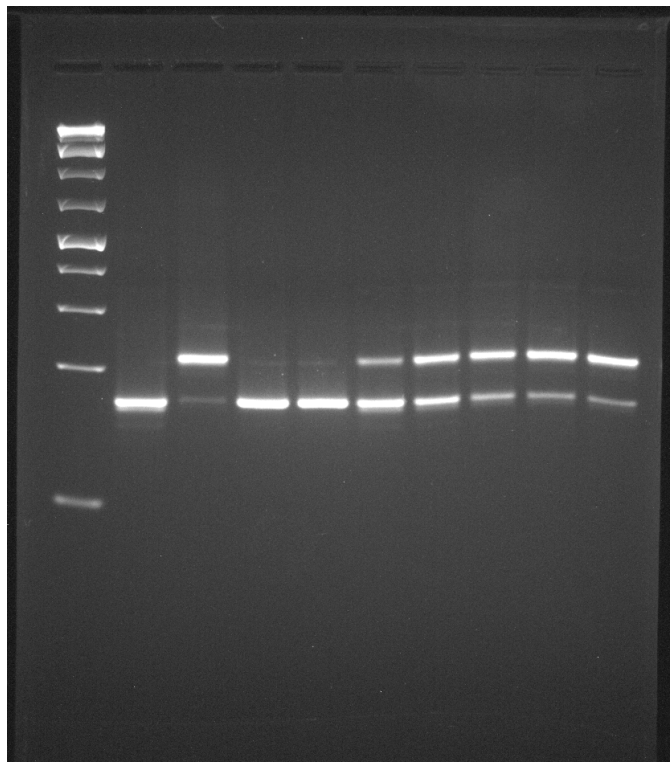
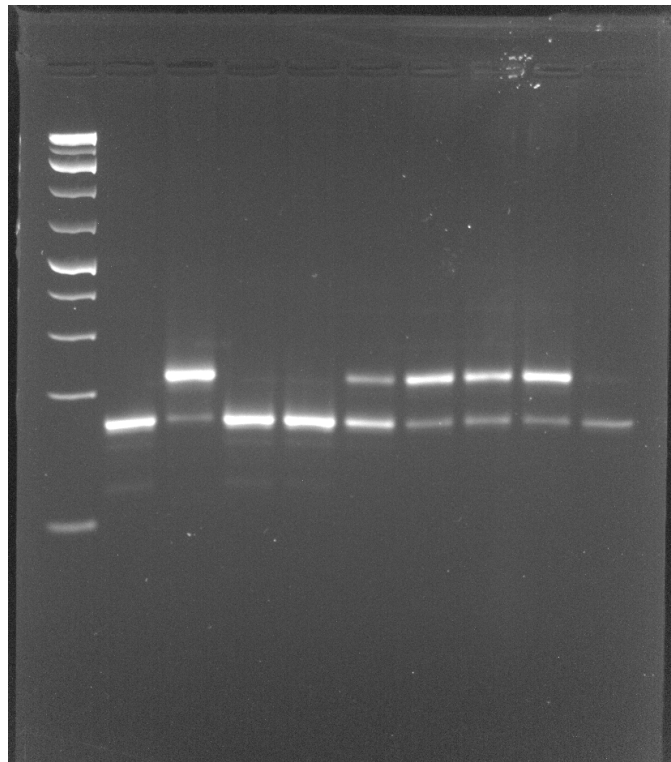


Figure S2. *Lane 1:* 1 kb ladder; *Lanes 2-4:* not used in manuscript; *Lanes 5-6:* lanes shown in Figure 1c (right)

Lane: 1 2 3 4 5 6 7 8 9 10



1 2 3 4 5 6 7 8 9 10



Lane: 1 2 3 4 5 6 7 8 9

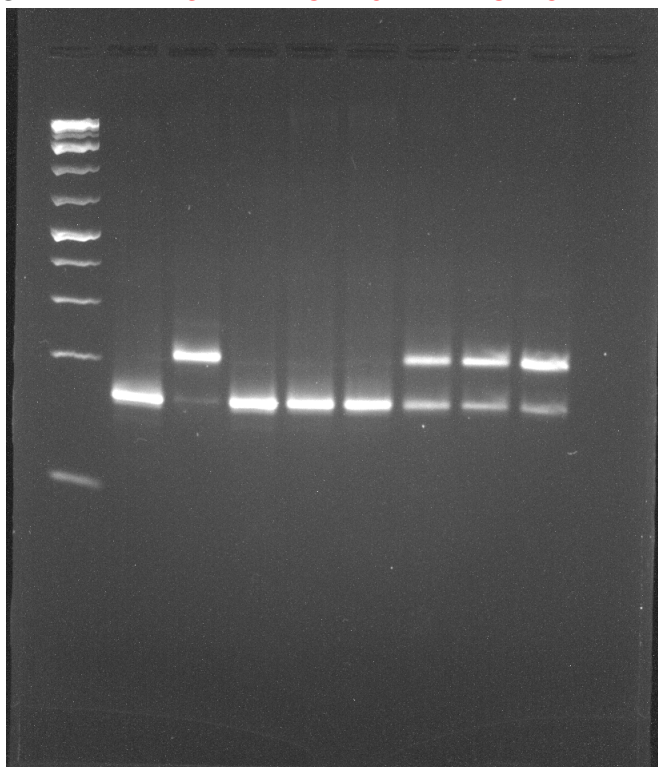


Figure S3. The three gels used in the quantification of phenol titration gel in Figure 2. Data not shown in the manuscript was still used for quantification. **UL:** Lane 1: 1 kb ladder; Lane 2: 150 bp biotinylated DNA; Lane 3: 150 bp biotinylated

DNA+MS; *Lanes 4-10*: 150 bp biotinylated DNA+MS incubated with phenol at concentrations (v/v) of 25%, 12.5%, 6.3%, 3.1%, 1.6%, 0.8%, and 0%; **UR**: *Lane 1*: 1 kb ladder; *Lane 2*: 150 bp biotinylated DNA; *Lane 3*: 150 bp biotinylated DNA+MS; *Lanes 4-9*: 150 bp biotinylated DNA+MS incubated with phenol at concentrations (v/v) of 25%, 12.5%, 6.3%, 3.1%, 1.6%, and 0%. These lanes were used as exemplary data in Figure 2, top. *Lane 10*: not used in manuscript; **Bottom**: *Lane 1*: 1 kb ladder; *Lane 2*: 150 bp biotinylated DNA; *Lane 3*: 150 bp biotinylated DNA+MS; *Lanes 4-9*: 150 bp biotinylated DNA+MS incubated with phenol at concentrations (v/v) of 25%, 12.5%, 6.3%, 3.1%, 1.6%, and 0%.

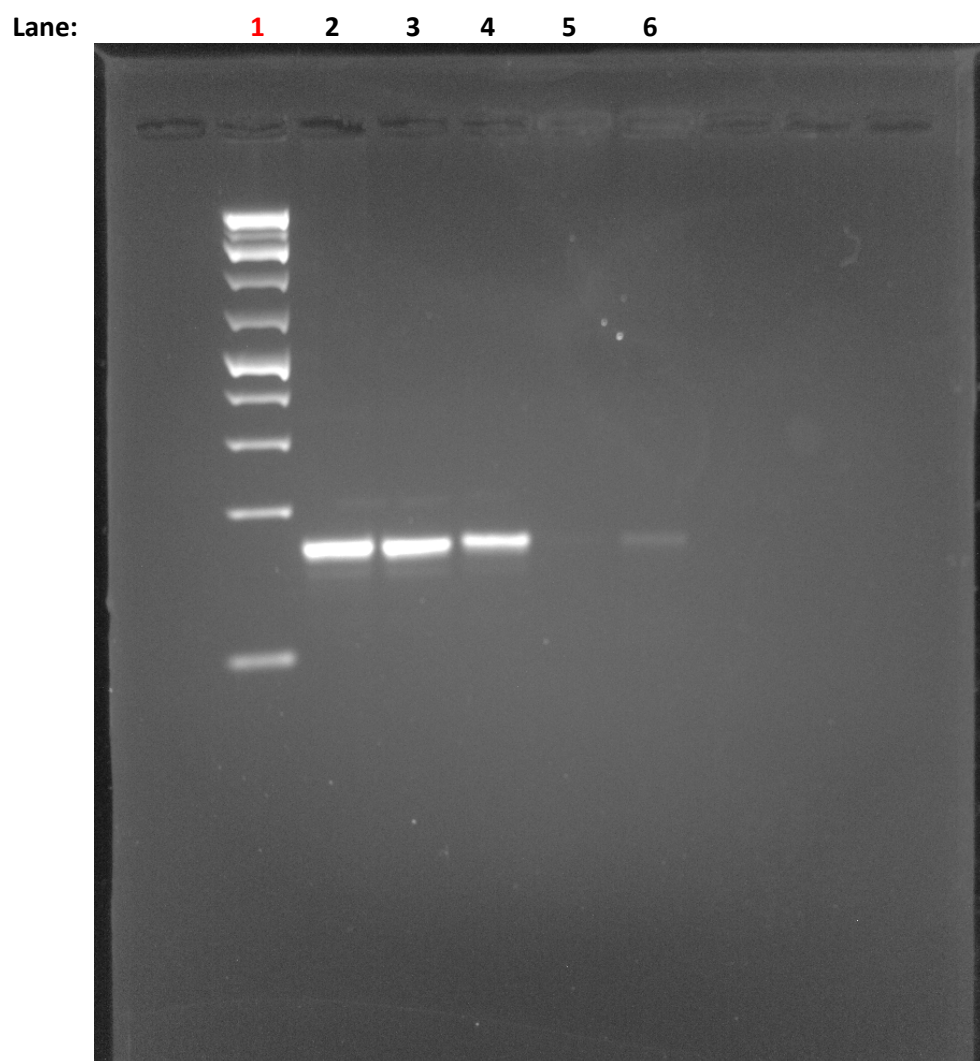


Figure S4. *Lane 1:* 1 kb ladder; *Lanes 2-6:* data shown in Figure 3

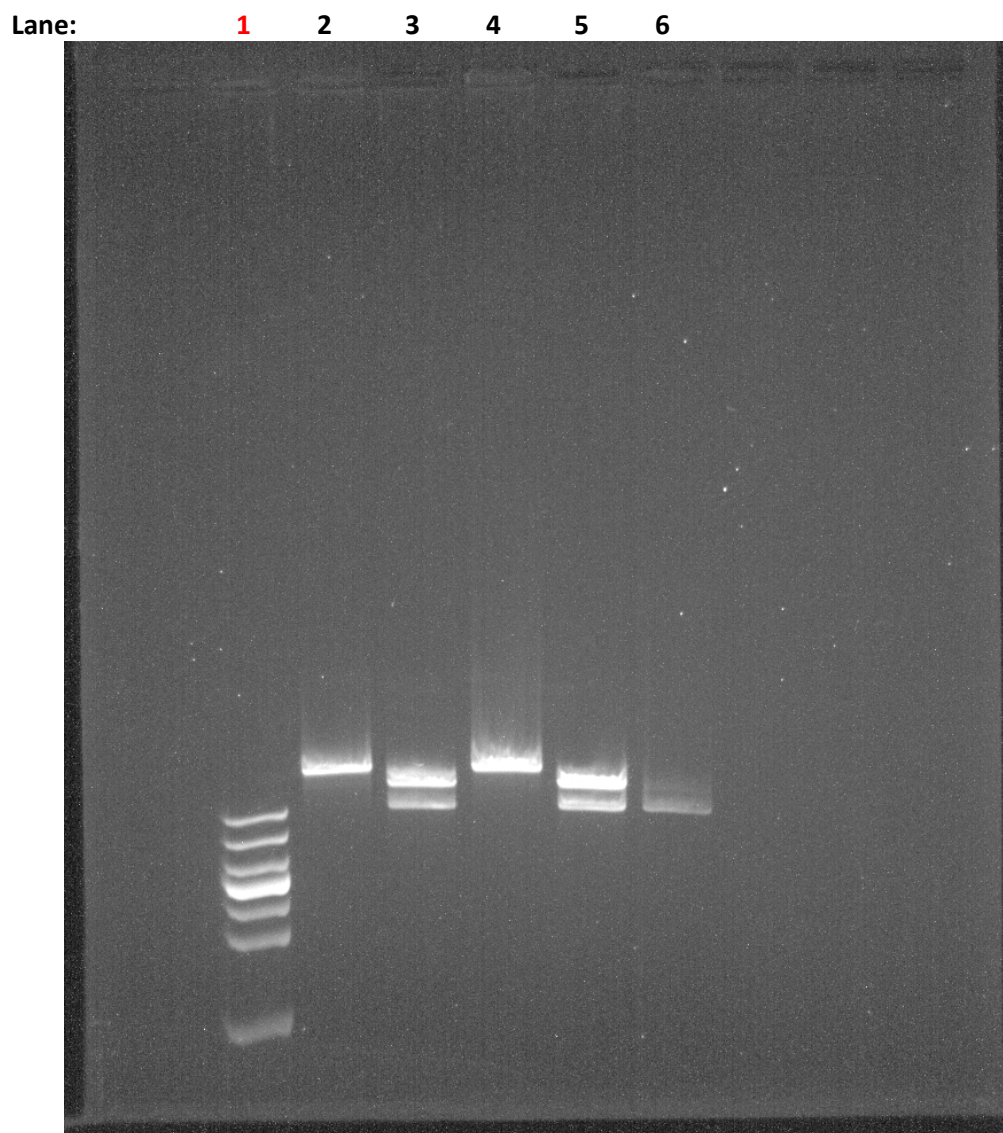


Figure S5. *Lane 1:* 1 kb ladder; *Lane 2:* Unmodified λ -phage DNA; *Lane 3:* Unmodified λ -phage DNA + PspXI;
Lanes 4 -6: data shown in Figure 4b