

Generation of Highly Specific Aptamers via Micromagnetic Selection [Analytical Chemistry 2009, 81, 5490–5495 DOI: 10.1021/ac900759k]. Seung Soo Oh, Jiangrong Qian, Xinhui Lou, Yanting Zhang, Yi Xiao,* and H. Tom Soh*

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In our previous work, single-stranded DNA was generated by the immobilization of the double-stranded DNA on the magnetic beads and alkaline denaturation. Due to the inadvertent detachment of biotin-labeled ssDNA, dsDNA, and streptavidin from the bead surface during the alkaline treatment, we unfortunately found that the aptamer sequences reported in Table 1 are incorrect and had poor binding to streptavidin. In order to resolve this problem, we reperformed the selection using lambda exonuclease digestion to generate ssDNA. The correct aptamer sequences that bind to steptavidin and their equilibrium binding constants ($K_{\rm d}$) are shown below (Table 1). The details of the improved selection methodology and results are forthcoming.

Table 1. Sequences and Dissociation Constants of Selected Aptamers

clone	sequence $(5' \rightarrow 3')$	$K_{ m d}$
1	AGCAGCACAGAGGTCAGATGAGGTTTAGTGAATATCTTCGATGATCCGAGGCAGGC	$36.2\pm3.6\mathrm{nM}$
	GATTCCGAAACATCGTTGAGCGCCTATGCGTGCTACCGTGAA	
2	AGCAGCACAGAGGTCAGATGAGGTTTAGTGAATATCTTCGATGATCCGAGGCAGGC	$35.2\pm2.4\mathrm{nM}$
	GATTCCGAAACATCGCTGAGCGCCTATGCGTGCTACCGTGAA	

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