Supplementary Material (ESI) for Analyst

Supporting information for

Characterization and application of a DNA aptamer binding to Tryprophan

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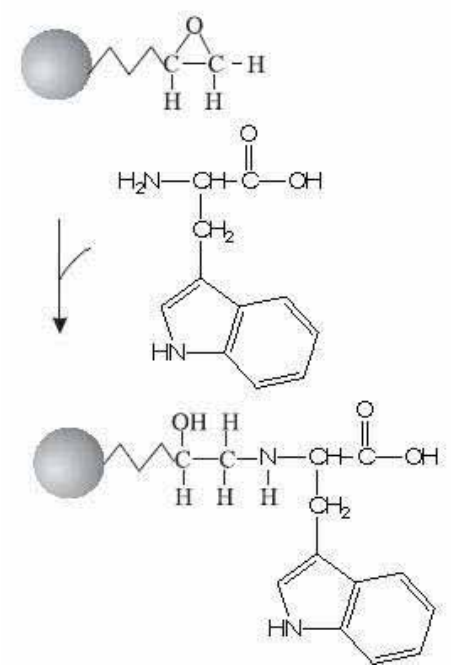

Figure S1. Immobilizton procedure of L-tryptophan to the Epoxy-activated Sepharose 6B^{TM}

Table S1.The changes of the selection conditions during SELEX procedure

Round	positive beads (μL)	negative beads (μL)	Incubating time (min)	Washing buffer (μL) × times
1th	200	0	60	100×2
2th	60	20	60	100×2
3th	20	20	30	100×2
4th	20	40	30	150×3
5th	20	60	30	150×3
6th	15	60	30	150×3
7th	15	60	30	150×4
8th	10	60	5	150×4
9th	10	60	5	200×4
10th	10	60	5	200×4
11th	10	60	5	200×4
12th	10	60	5	200×4

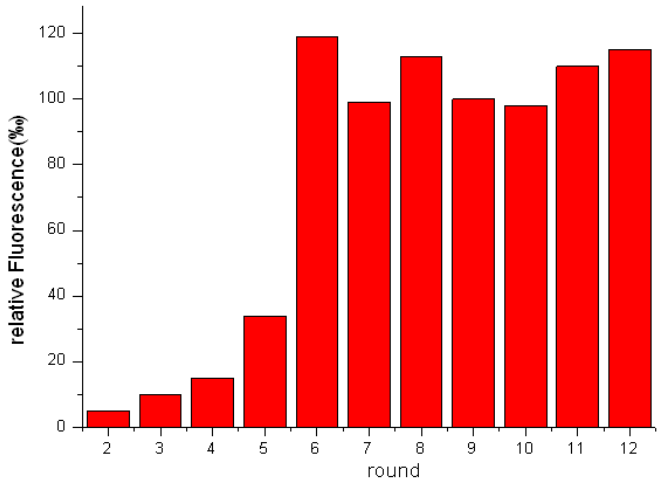

Figure S2.The progress of the selection. The bar represents the percentage of eluted ssDNA to the total amounts of ssDNA in each selection round. Relative Fluorescence=$(F_e)\times 1000‰/(F_0)$, where, F_e is the fluorescence intensity of the eluate. F_0 is the initial fluorescence intensity before binding.

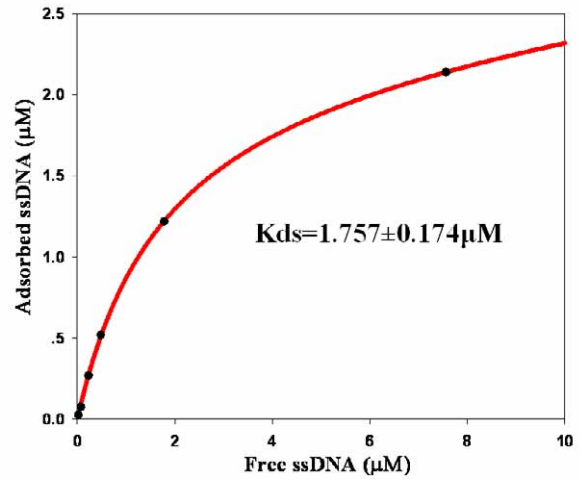

Figure S3. Binding curve of Trp3a-1 to L-tryptophan immobilized beads. Binding studies were performed with a fixed amount of L-tryptophan immobilized beads and a concentration series(0.05-10 μM) of the FAM-labelled aptamers. Binding curve was obtained and the Kd was calculated by sigmaplot 11 software