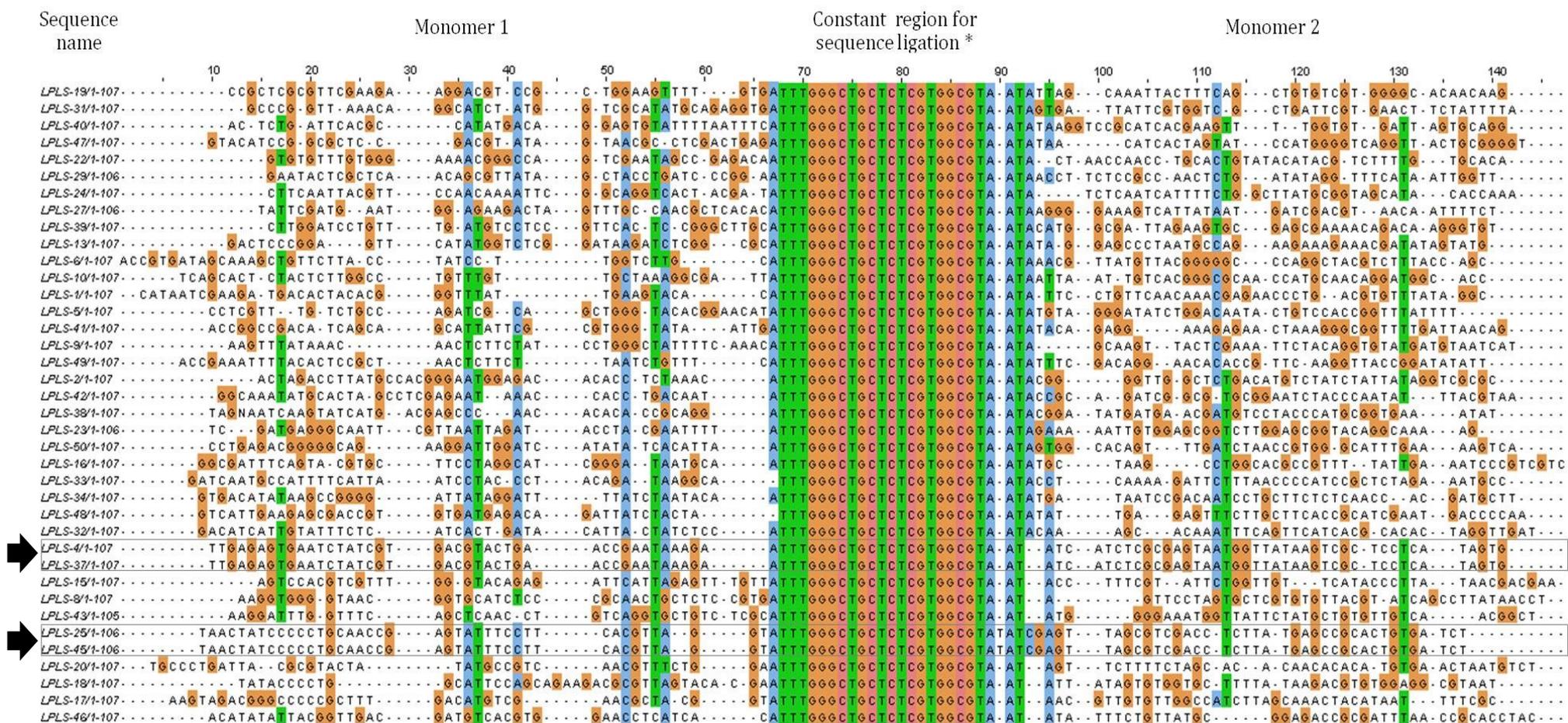
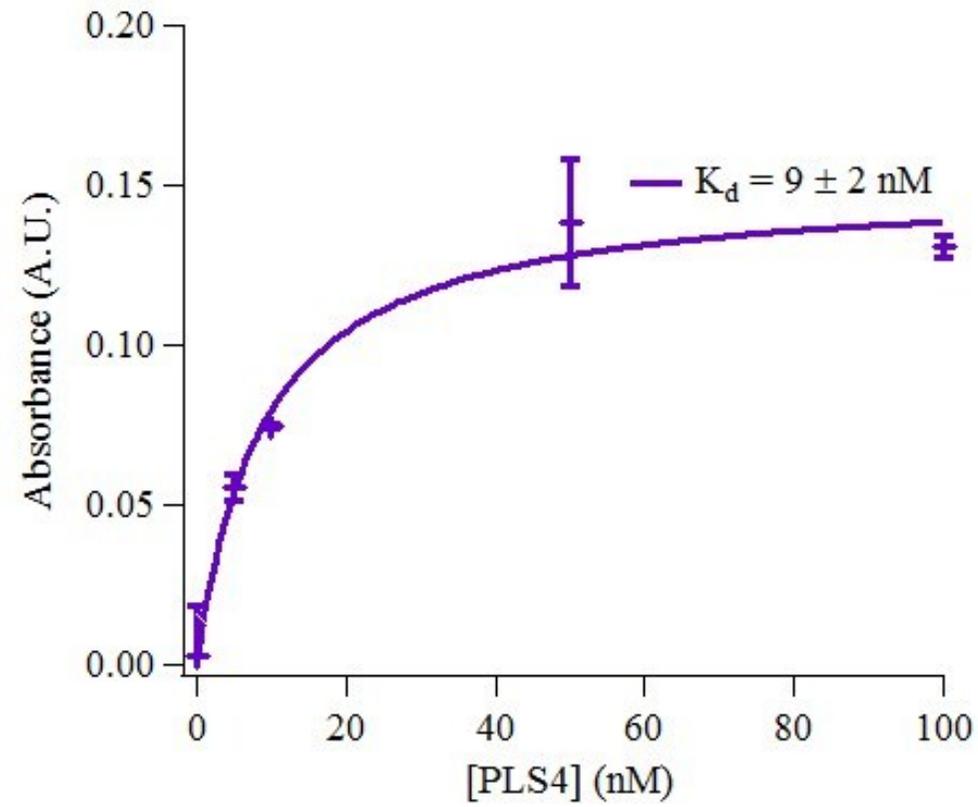


## Supplemental data



**Supplemental Figure 1.** PLS sequence alignment using ClustalW2 program. 38 sequences with correct constant ligation region and 5'-F-R-3' orientation were found from sequencing randomly picked 50 clones in the single round PLS against lysozyme. Monomer 1 and monomer 2 were from the F and R pool, respectively. Two sequences (arrows) were shown in duplicate and were subsequently selected for further characterization.



**Supplemental Figure 2:** Binding affinity of PLS4 aptamer to lysozyme by ELONA showed a  $K_d = 9 \pm 2$  nM.

