

ATW0008

Aptamer to Bovine and Human Fibronectin

Selection Information

Target for Selection: Bovine plasma fibronectin, Sigma # F4759

Number of DNA Nucleotides: 40

Aptamers were selected from a randomized Base Pair 40-mer DNA library against the target protein. Proprietary methods were used to select this specific aptamer sequence.

Affinity Determination

Affinity Determination Method: Bio-Layer Interferometry (BLI)

Buffer Used for Affinity Determination: 20 mM Tris, 100 mM NaCl, 0.005% Tween, in nuclease-free water, pH 7.4

Average K_D : 1.7 nM

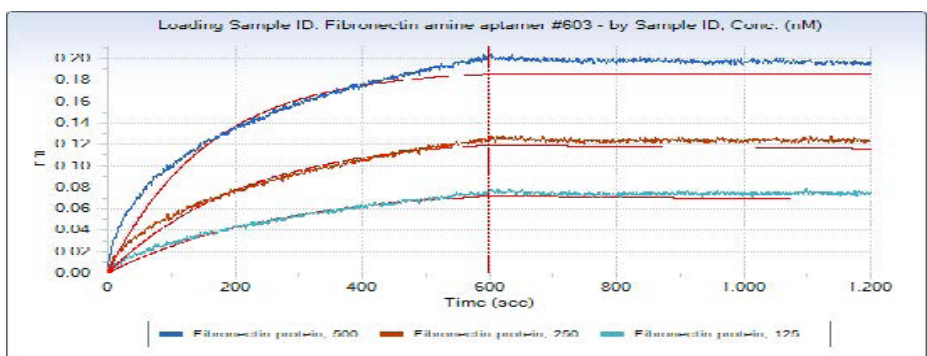


Figure 1. Aptamer-Fibronectin Binding

Association and dissociation graph of 1:1 fitting model of Fibronectin aptamer ATW0008 to human Fibronectin protein (Advanced BioMatrix Cat# 5050) concentrations 500, 250 and 125 nM, by single reference method.

Table 1. K_D , R^2 , and Chi^2 values by local fitting for single reference method. Avg K_D = 1.7 nM					
Immobilized Aptamer	Analyte	Concentration	Response	Full X^2	Full R^2
ATW0008 + amine	Hu Fibronectin Protein	500	2	0.075613	0.924154
ATW0008 + amine	Hu Fibronectin Protein	250	0.124	0.014453	0.962353
ATW0008 + amine	Hu Fibronectin Protein	125	2.38 E-09	0.004639	0.964343

Aptamer Folding

For optimal binding, aptamers must be folded into their tertiary structure prior to use. Dilute to 10x - 100x working concentration in Folding Buffer, heat to 90-95°C for 5 minutes, then cool to room temperature (~15 minutes)