

ATW0004

Aptamer to Dengue Type 2 NS1 Protein

Selection Information

Target for Selection: Dengue 2 NS1 Protein

Number of DNA Nucleotides: 32

Aptamers were selected from a randomized Base Pair 32-mer DNA library against the target molecule. Proprietary methods were used to select this specific aptamer sequence.

Affinity Determination

Affinity Determination Method: Bio-Layer Interferometry (BLI)

Average K_D : 21 nM

Table 1. K_D , R^2 , and χ^2 values by local fitting for single reference method. Avg K_D = 21 nM						
Immobilized Aptamer	Analyte	Conc.	Response	K_D (M)	Full χ^2	Full R^2
ATW0004 + biotin	Dengue Type 2 NS1 Protein	500	0.64	3.44E-08	0.54772	0.940441
ATW0004 + biotin	Dengue Type 2 NS1 Protein	250	0.6204	1.89E-08	0.586552	0.925491
ATW0004 + biotin	Dengue Type 2 NS1 Protein	125	0.6842	9.84E-09	0.94407	0.911872

Aptamer Folding and Dilution

For optimal binding, aptamers must be folded into their tertiary structure prior to use. Dilute to 10x working concentration in Folding Buffer, heat to 90-95°C for 5 minutes, then cool to room temperature (~15 minutes). Final application buffers used for dilution of aptamer to working concentration and washing should contain 1 mM MgCl₂.
