

ATW0060

Aptamer to Procalcitonin

Selection Information

Target for Selection: Recombinant human procalcitonin, ProSpecBio Cat# HOR-304

Number of DNA Nucleotides: 70 (with primer regions)

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: Microscale Thermophoresis (MST)

Buffer Used for Affinity Determination: 1 x PBS, 1 mM MgCl₂, 0.05% Tween, pH 7.4

Average K_D: 26.6 nM

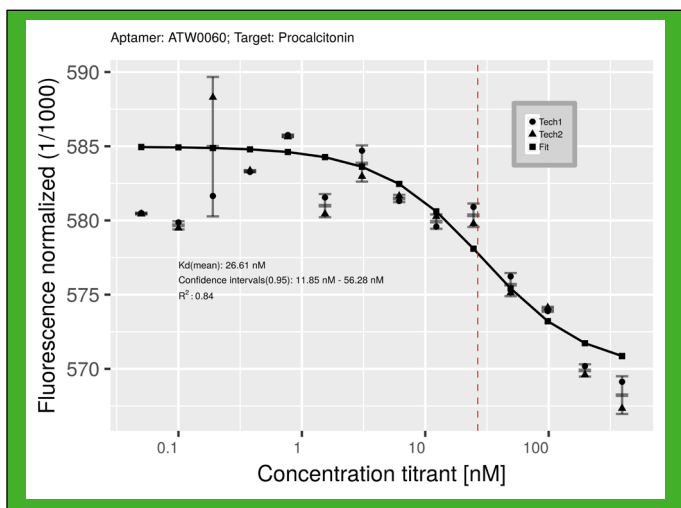


Figure 1. Aptamer-Procalcitonin binding. The thermophoresis is plotted versus the titrated procalcitonin concentration.

$$R^2 = 0.84$$

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.