



APTAMERS INFORMATION

Epirubicin Apt #286

1a. Description:

- **Identifiers:** Oligo #286
- **Number of DNA nucleotides:** 40 bases
- **Molecular weight:** 12,393.0 g/mol
- **Target for selection:** Epirubicin

Aptamer was selected from a randomized 40-mer library against Epirubicin. Proprietary methods were then used to select the aptamer.

Aptamer folding instruction before use:

Once the aptamer is in its working concentration, it needs to be heated to 85-90 °C for 2 minutes, and then cooled to room temperature before use.

1b. Validation data with Epirubicin by MST (Microscale Thermophoresis) method:

- **Buffer used for validation:** 20 mM Tris, 100 mM NaCl, 0.005% Tween20 in nuclease free water, pH 7.4

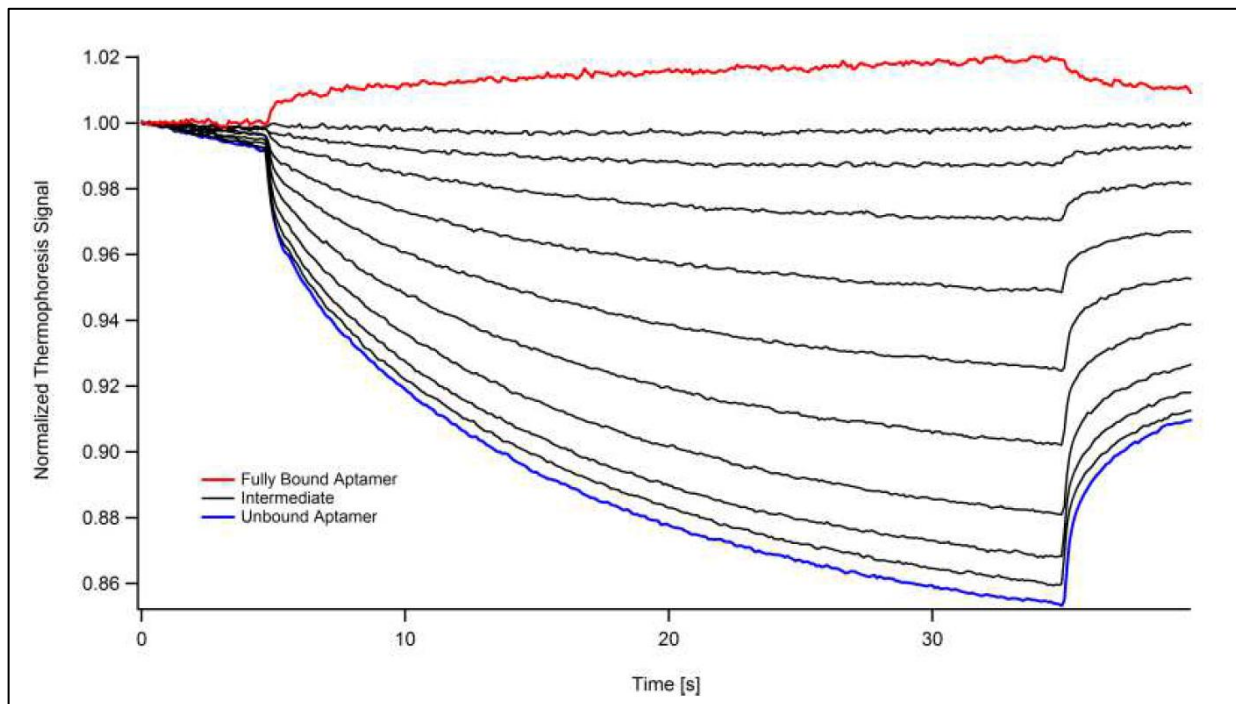


Figure 1. Thermophoresis time traces. The thermophoresis time traces of an unbound aptamer (blue) differ significantly from the time traces of an aptamer bound to Epirubicin (black and red).



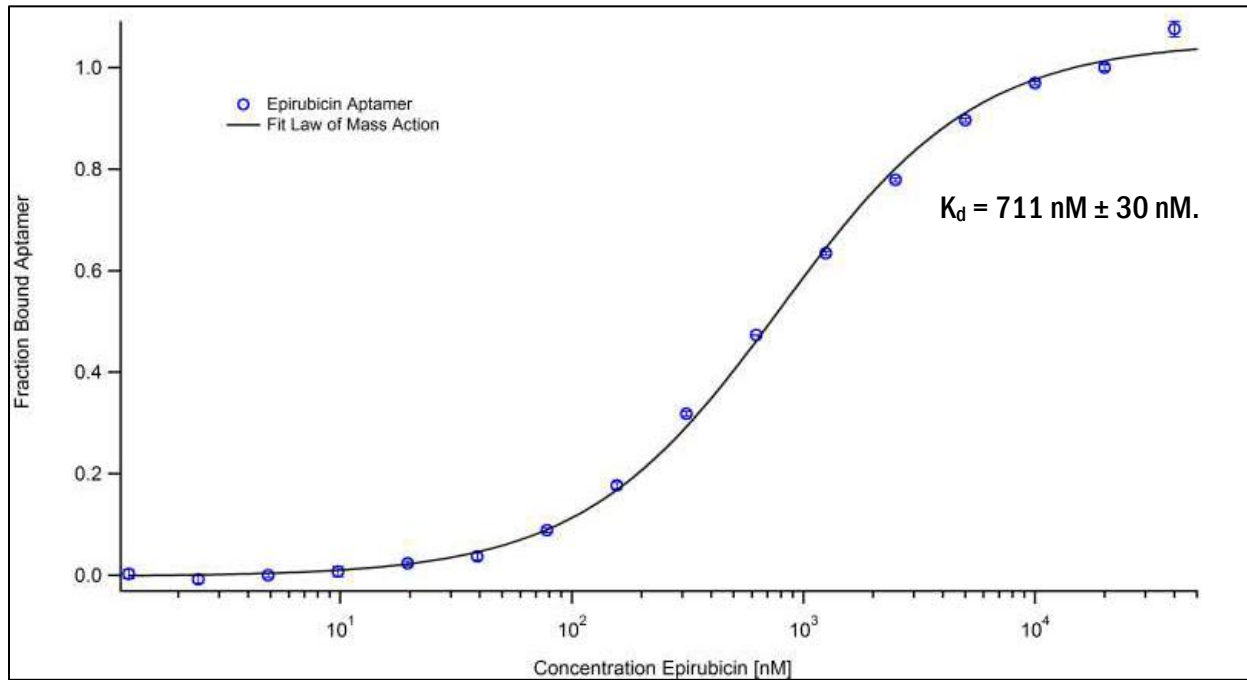


Figure 2. Aptamer-epirubicin binding. The fraction of bound fluorescently labeled aptamer is plotted versus the titrated epirubicin concentration. The values are the mean values from three independent measurements. The nonlinear fit (black line) with the law of mass action derives a K_d of $711 \text{ nM} \pm 30 \text{ nM}$.