

Materials List for

Determining the Thermodynamic and Kinetic Association of a DNA Aptamer and Tetracycline Using Isothermal Titration Calorimetry

Tran Thi Thanh Thoa¹, Albert M. Liao¹, G. Thomas Caltagirone¹

¹Aptagen LLC

Corresponding Author

Tran Thi Thanh Thoa
thoatran@korea.ac.kr

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Materials

Name	Company	Catalog Number	Comments
5'-CGTACGGAATTCG CTAGCCCCCGGCAGGCCACGG C TTGGGTTGGTCCCCTGCGCG TGGATCCGAGCTCCAC GTG-3'	Integrated DNA Technologies, Inc		The sequence is adopted from Gu's research, which has not identified K _d using ITC (refer references 8 and 9)
Affinity ITC Auto Low Volume (190 μ L) System Complete–Gold Cells	TA Instruments	61000.901	Isothermal titration calorimetry system
CaCl ₂	Avantor (VWR)	E506-100ML	Calcium chloride 1 M in aqueous solution, Biotechnology Grade, sterile
Centrifuge	Eppendorf	5417R	The Eppendorf 5417R is unsurpassed in safety, reliability and ease-of-use. Very easy to maintain with a brushless motor that spins up to 16,400 RPM with maximum RCF up to 25,000 x g.
Complete Degassing Station (110/230V)	TA Instruments	6326	This degasser provides a self-contained stirring platform, vacuum chamber, vacuum port, temperature control and electronic timer for proper sample preparation.
EDTA	TekNova	E0375	EDTA 500 mM, pH 7.5
NanoDrop One Microvolume UV-Vis Spectrophotometer	ThermoFisher	ND-ONE-W	UV-Vis Spectrophotometer
Nanosep, Nanosep MF and NAB Centrifugal Devices	Pall Laboratory	OD030C34	3 kDa molecular weight cutoff concentrator
PBS pH 7.4	IBI Scientific	IB70165	Buffer containing Sodium phosphate, Sodium chloride, Potassium phosphate, and Potassium chloride Ultra-Pure Grade Sterile filtered using 0.2 μ m filter. Autoclaved at 121 °C for greater than 20 min.
Posi-Click 1.7 mL Large Cap Microcentrifuge Tubes	labForce (a Thomas Scientific Brand)	1149K01	
Tetracycline, Hydrochloride	EMD Millipore Corporation	CAS64-75-5	