

Supplemental Material:
Thymine Dimer-Induced Structural Changes to the DNA Duplex
Examined with Reactive Probes

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Supplemental Table 1: Thermodynamic Data for the ssDNA \rightleftharpoons dsDNA Equilibrium

	T_m °C		ΔH kcal/mol		ΔS cal/mol K		ΔG at 25°C kcal/mol	
	UV*	cal†	UV	cal	UV	cal	UV	cal
1-2	66.6 ± 0.5	66.9 ± 0.6	-175 ± 5	-150.0 ± 2.4	-492 ± 15	-474 ± 63	-28.2 ± 0.5	-8.8 ± 16.9
1TT-2	63.6 ± 0.2	63.0 ± 0.2	-174 ± 20	-133.2 ± 9.9	-493 ± 58	-420 ± 24	-26.6 ± 2.1	-8.2 ± 7.8
Difference due to T \rightleftharpoons T	$\Delta T_m =$ -3.0 \pm 0.5	$\Delta T_m =$ -3.9 ± 0.6	$\Delta\Delta H^\circ =$ +1 ± 20	$\Delta\Delta H^\circ =$ +16.8 ± 10.2	$\Delta\Delta S^\circ =$ -1 ± 60	$\Delta\Delta S^\circ =$ +54 ± 68	$\Delta\Delta G^\circ =$ +1.6 ± 2.2	$\Delta\Delta G^\circ =$ +0.6 ± 18.6

* 21 μ M DNA duplex

† 40 μ M DNA duplex