Thermodynamics of Folding

Thermodynamics of Folding: $\Delta G = \Delta H - T\Delta S$

- ΔG = 2.52 kcal/mol at 54 °C
- ΔH = -31.00 kcal/mol
- ΔS = -102.4 cal/(K·mol)
- T_m = 29.4 °C assuming a 2 state model.
- linear DNA folding.
- Ionic conditions: [Na^+] = 0.05 M, [Mg^{++}] = 0 M.
- Standard errors are roughly ±5%, ±10%, ±11% and 2-4 °C for free energy, enthalpy, entropy and T_m, respectively.

Structure 3
24Jun24-07-41-22
ΔG = 2.52

Structural element	δG	Information
External loop	0.00	3 ss bases & 1 closing helices.
Stack	-1.35	External closing pair is c [1]-G [27]
Stack	-0.70	External closing pair is g [2]-C [26]
Stack	-0.70	External closing pair is t [3]-A [25]
Helix	-2.75	4 base pairs.
Hairpin loop	5.27	Closing pair is g [4]-C [24]