

Supplementary information:

Thermodynamics and Solvation dynamics of BIV TAR RNA-Tat Peptide Interaction

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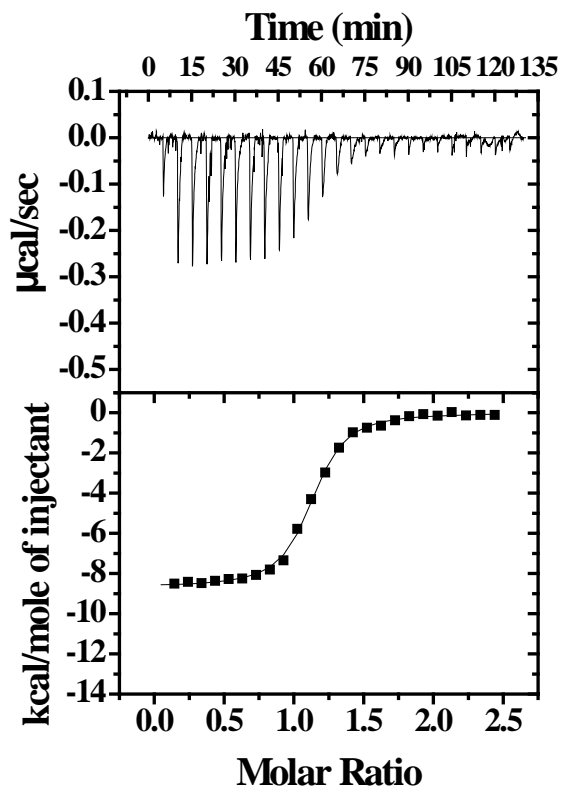
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Figure S1: Isothermal titration calorimetry (ITC) for binding of BIV Tat peptide to the BIV TAR RNA using buffer A at 20 °C and 30 °C. The top plot is the baseline corrected experimental data. The lower plot represents the molar heat released plotted against peptide to RNA molar ratio.

20 °C



30 °C

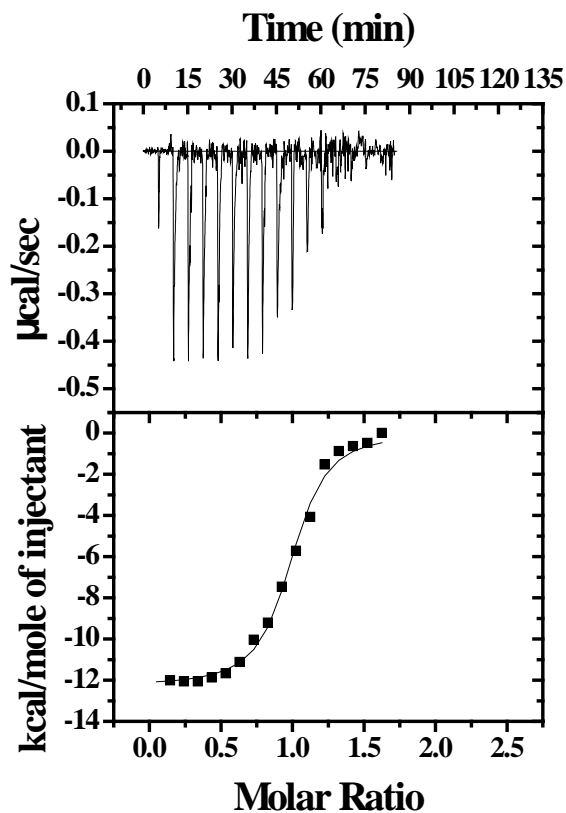
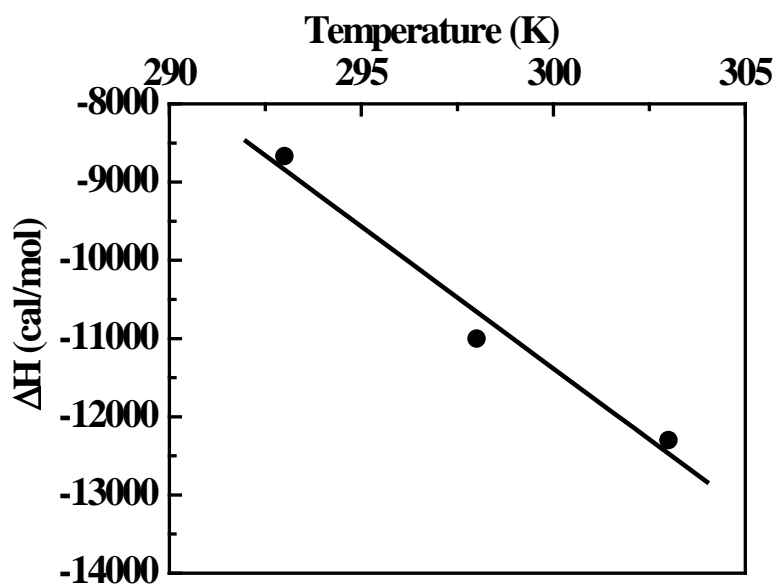


Table S1: Change in enthalpy and entropy as calculated from ITC experiments at different temperatures. n and K_a are the stoichiometry and binding affinity of the BIV TAR RNA-Tat system respectively.

Temperature (°C)	n	$K_a (M^{-1}) \times 10^6$	ΔH (Kcal/mol)	$T\Delta S$ (Kcal/mol)
30	0.9	10.6	-12.6	-2.9
25	1.0	9.8	-11.7	-2.2
20	1.1	1.4	-8.7	-0.5

Figure S2: Plot of change in enthalpy of binding v/s temperature



Slope of enthalpy v/s temperature is $\Delta C_p = -363.0$ cal/mol K