Thermodynamic Origin of α-Helix Stabilization by Side-Chain Cross-Links in a Small Protein

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Absorbance₂₈₀ 30 25 10 15 20 Retention time (min.) 2b Absorbance₂₈₀ Absorbance₂₈₀ 2a 30 **⊢** 15 15 20 35 10 25 25 30 20 Retention time (min.) Retention time (min.) 3b 3a Absorbance₂₈₀ Absorbance₂₈₀ 30 10 15 20 10 15 30 20 25 25 Retention time (min.) Retention time (min.) Absorbance₂₈₀ Absorbance₂₈₀ 20 30 10 15 25 10 15 20 25 30 Retention time (min.) Retention time (min.)

Supporting Information

Fig. S1. Analytical HPLC chromatograms of purified peptides 1, 2a-4a and 2b-4b.

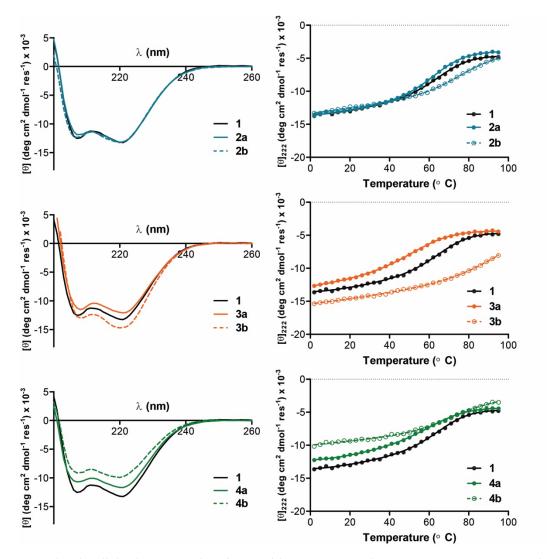


Fig. S2. Circular dichorism (CD) data for peptides **1**, **2a-4a** and **2b-4b** at 50 μ M concentration. Left: CD scans acquired at 20 °C. Right: CD thermal melts obtained by monitoring molar elipticity at 222 nm as a function of temperature; circles represent measured elipticity values, while dashed or solid lines represent the nonlinear fit to a two-state thermal denaturation model.

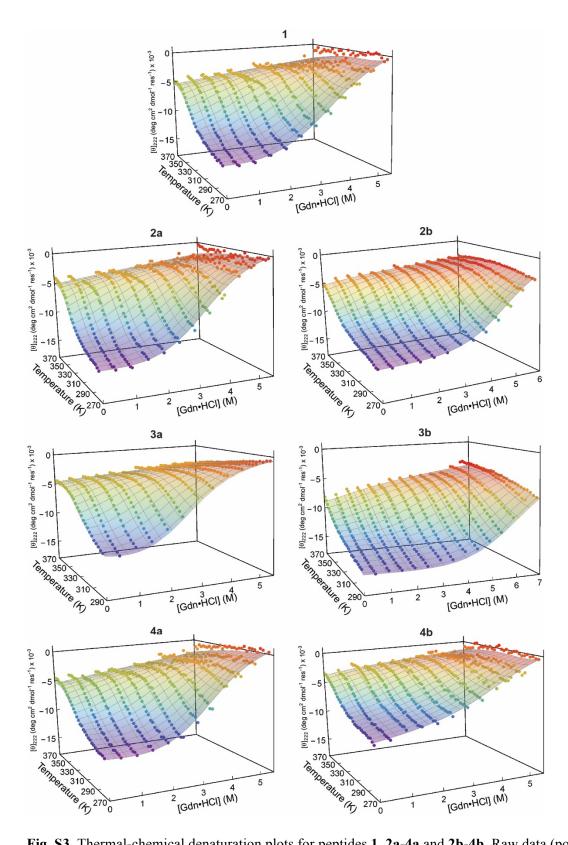


Fig. S3. Thermal-chemical denaturation plots for peptides **1**, **2a-4a** and **2b-4b**. Raw data (points) are fit (surface) to extract thermodynamic parameters for the folding equilibrium.

	$[M+H]^{+}(m/z)$	
Peptide	Calculated	Observed
1	4151.3	4151.1
2a	4138.2	4138.0
2b	4120.2	4120.3
3a	4146.8	4146.0
3b	4146.8	4146.5
4 a	4212.3	4212.3
4b	4163.2	4163.0

 Table S1. MALDI-TOF data for peptides 1, 2a-4a and 2b-4b.