Electronic Supplementary Material (ESI) for Organic & Biomolecular Chemistry.

Receptor-Templated Stapling of Intrinsically Disordered Peptide Ligands

Conor M. Haney and W. Seth Horne*
Department of Chemistry, University of Pittsburgh, Pittsburgh, PA 15260

Supporting Information

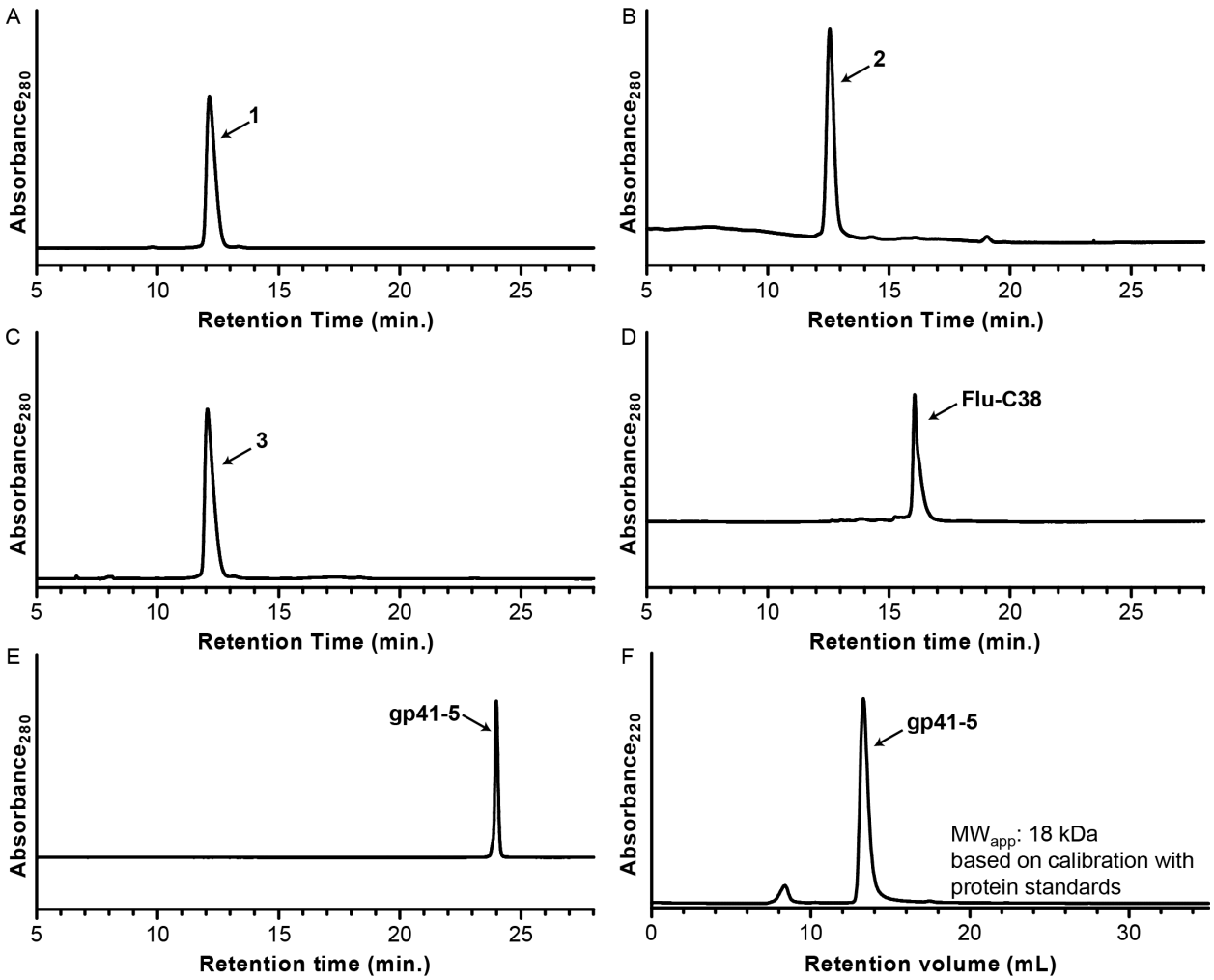

Figure S1. Chromatograms of purified peptides **1-3**, Flu-C38, and gp41-5. (A-E) HPLC chromatograms of peptides **1-3** (A-C, respectively), Flu-C38 (D) and gp41-5 (E). (F) Analytical GPC chromatogram of refolded gp41-5. Calculated molecular weight based on calibration with protein standards.

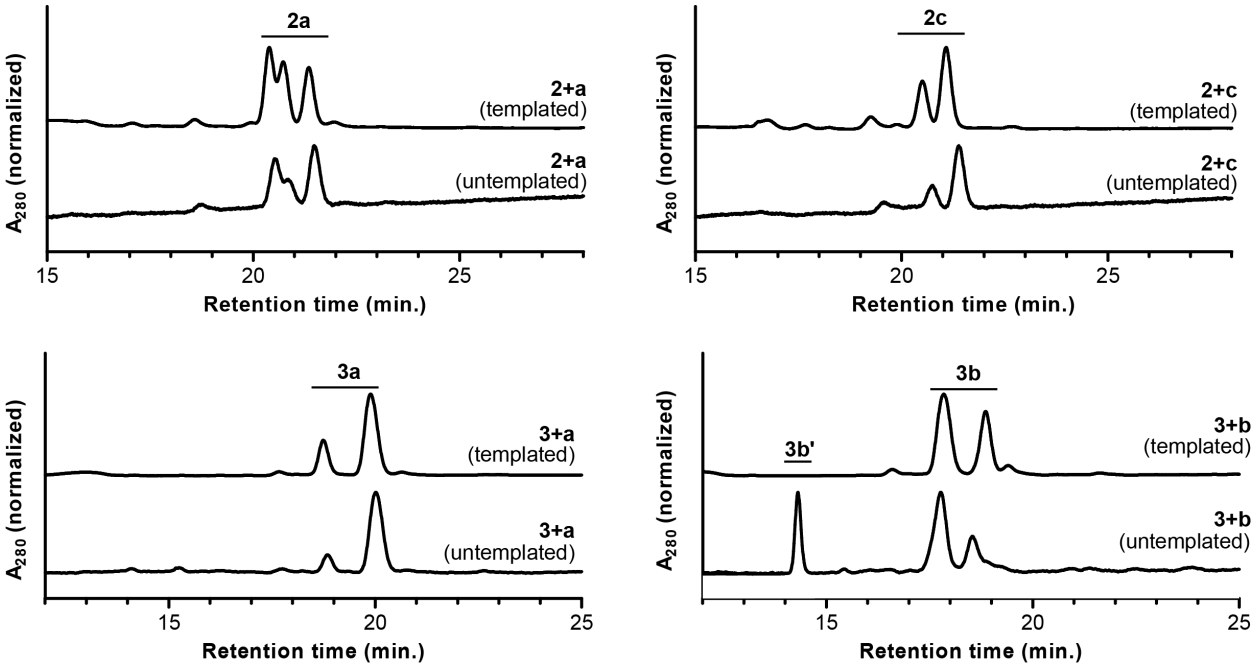

Figure S2. HPLC chromatograms of peptide stapling reactions carried out in the presence ("templated") or absence ("untemplated") of the gp41-5 protein receptor. Each reaction consists of 10 μM peptide, 40 μM linker, and 10 μM gp41-5 (if present) in pH 7 phosphate buffer.

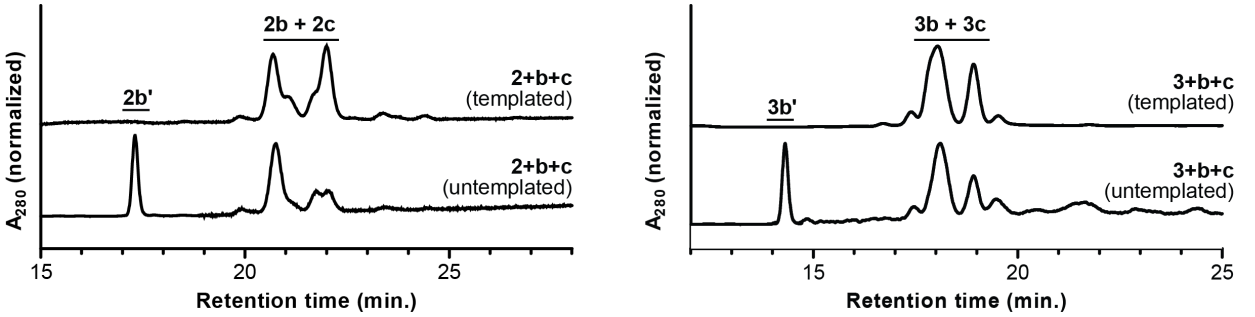

Figure S3. HPLC chromatograms of peptide stapling reactions carried out in the presence ("templated") or absence ("untemplated") of the gp41-5 protein receptor. Each reaction consists of 10 μM peptide, 40 μM each linker (**b** and **c**), and 10 μM gp41-5 (if present) in pH 7 phosphate buffer.

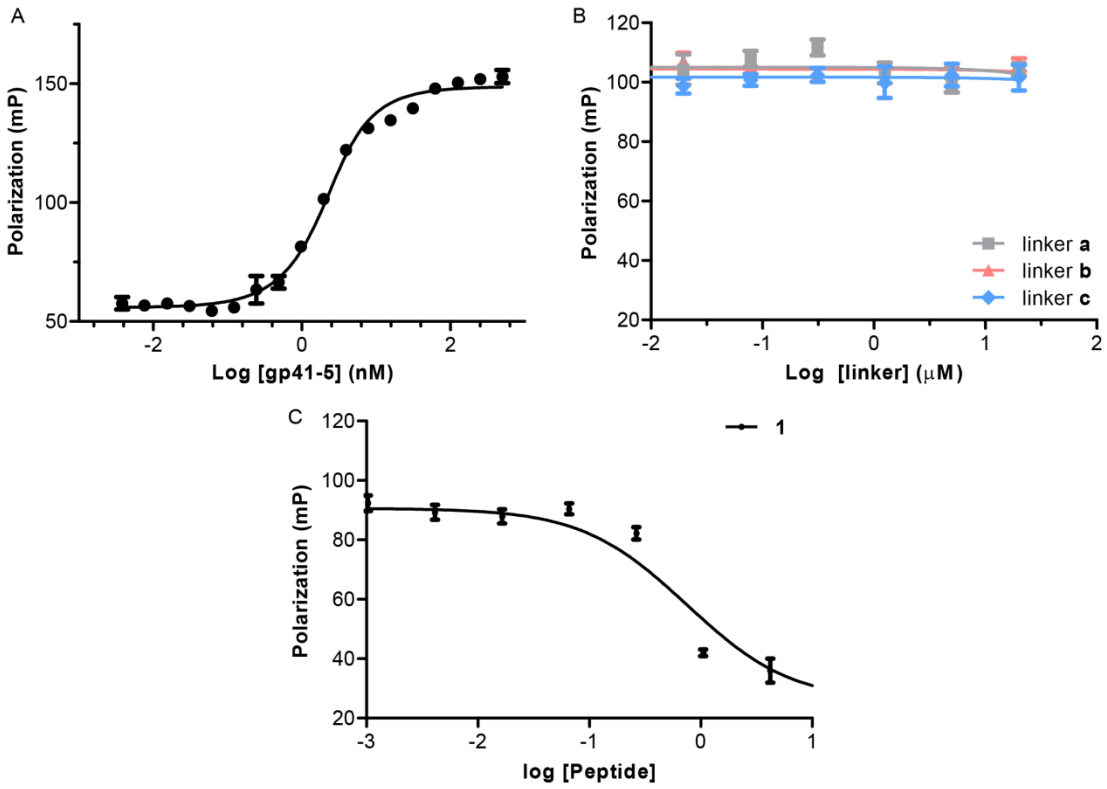

Figure S4. Fluorescence polarization curves. (A) Direct binding fluorescence polarization assay showing titration of gp41-5 into 2 nM Flu-C38. (B) Fluorescence polarization (FP) inhibition of the interaction between Flu-C38 and gp41-5 by linkers **a-c**. No disruption of the binding interaction is observed. (C) Fluorescence polarization (FP) inhibition curve for peptide **1** competitively displacing Flu-C38 from the gp41-5 receptor.

Table S1. MALDI-TOF Data for peptides **1-3**, their cyclic products, protein gp41-5, and Flu-C38.

	$[M+H]^+$ (*m/z*)	
Peptide	**Calculated**	**Observed**
1	2812.5	2812.3
2	2816.5	2816.5
2a	2914.5	2914.6
2b	2914.5	2914.7
2b′	2932.5	2932.7*
2c	2920.4	2920.2
3	2816.5	2816.3
3a	2914.5	2914.8
3b	2914.5	2914.2
3b′	2932.5	2932.8*
3c	2920.4	2920.5
gp41-5	22228.7†	22232.1†
Flu-C38	5089.3	5089.5

*Second species observed at 2949.5.
†Calculated and observed average $[M+H]^+$ masses