Supporting Information

O-Acyl Isopeptide Method: Efficient Synthesis of Isopeptide Segment and Application to Racemization-Free Segment Condensation

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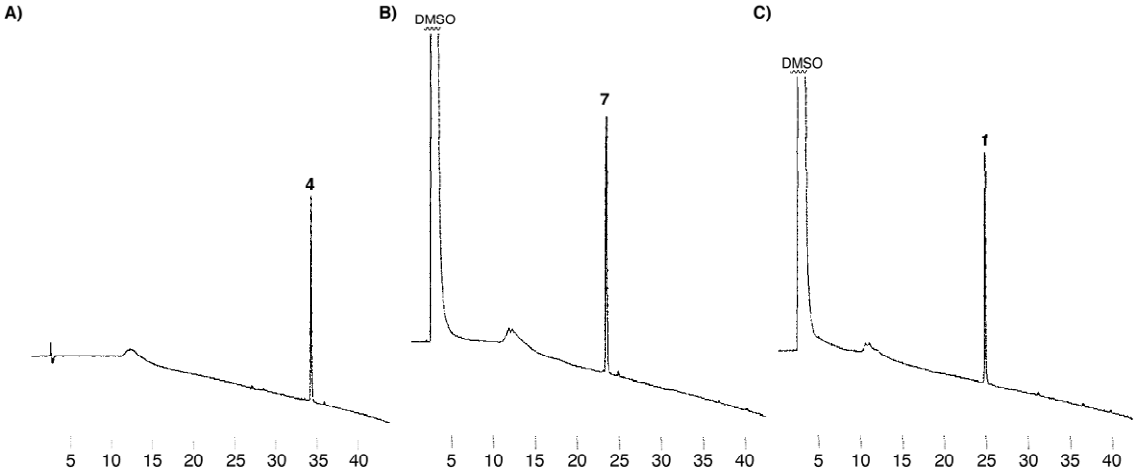
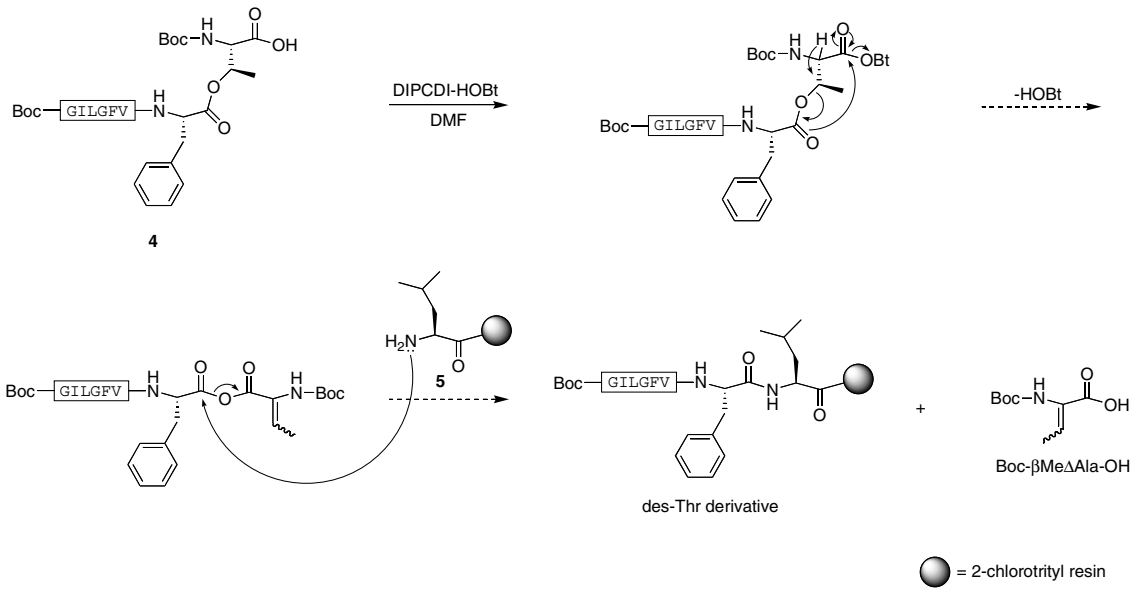


Fig. S1 HPLC profile of (A) pure **4**, (B) pure **7** and (C) pure **1**. Analytical HPLC was performed using a C18 reverse phase column (4.6 × 150 mm; YMC Pack ODS AM302) with a binary solvent system: a linear gradient of CH_3CN (0–100% CH_3CN, 40 min) in 0.1% aqueous TFA at a flow rate of 0.9 mL min^{-1} (40°C), detected at 230 nm.



Scheme S1. Possible side reaction during C-terminal activation of the isopeptide segment **4**. The proposed side reaction, resulting in des-Thr-**6**, was not observed in this study.

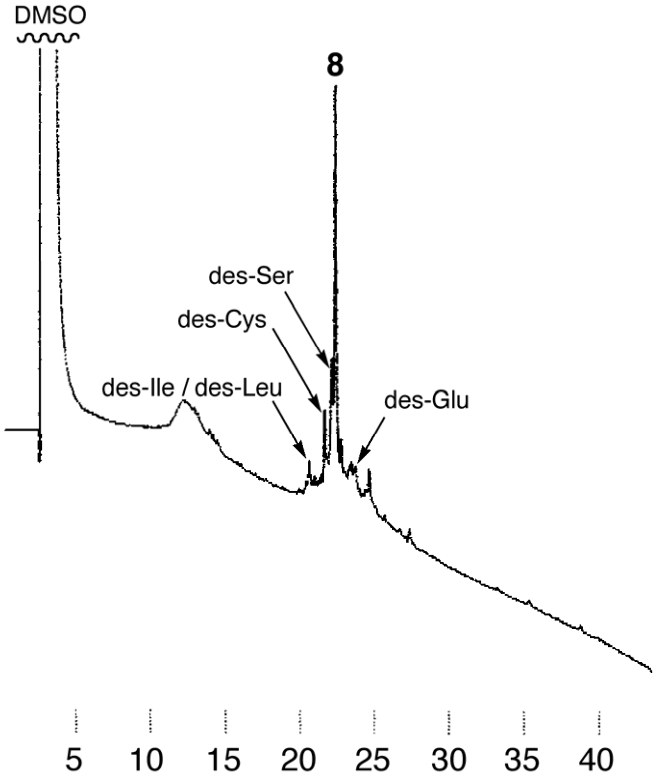


Fig. S2 HPLC profile of crude **8** synthesized by conventional Fmoc-based SPPS. The byproducts were identified by MALDI-MS. HPLC conditions were similar to those described in Fig. S1.

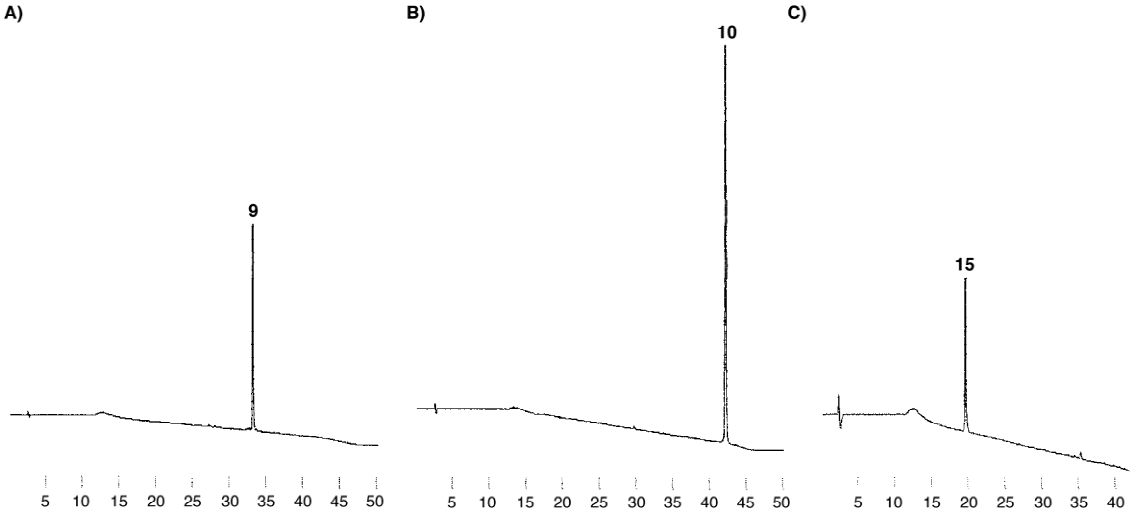


Fig. S3 HPLC profiles of (A) pure **9**, (B) pure **10** and (C) pure **15**. HPLC conditions were similar to those described in Fig. S1.

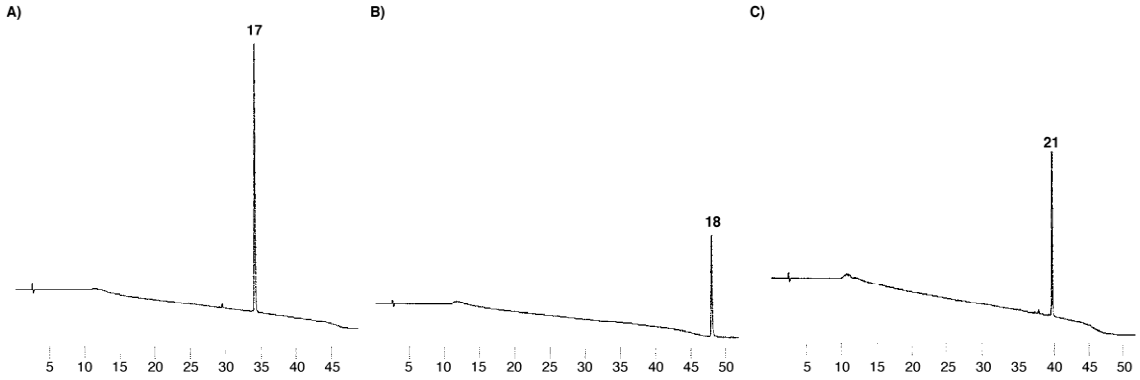


Fig. S4 HPLC profile of (A) pure **17**, (B) pure **18** and (C) pure **21**. HPLC conditions were similar to those described in Fig. S1.