

Supplementary information

Regioselective self-acylating cyclodextrins in organic solvent

Eunae Cho,[†] Deokgyu Yun,[‡] Daham Jeong,[‡] Jieun Im,[‡] Hyunki Kim,[‡] Someshwar D Dindulkar,[†] Youngjin Choi,[§] Seunho Jung,^{†,‡}*

[†]Center for Biotechnology Research in UBITA (CBRU), Institute for Ubiquitous Information Technology and Applications (UBITA), Konkuk University, 120 Neungdong-ro, Gwangjin-gu, Seoul 05029

[‡]Department of Bioscience and Biotechnology, Microbial Carbohydrate Resource Bank (MCRB), Konkuk University, 120 Neungdong-ro, Gwangjin-gu, Seoul 05029, South Korea

[§] Departments of Food Science and Technology, BioChip Research Center, Hoseo University, 20, Hoseo-ro 79beon-gil, Baebang-eup, Asan-si, Chungcheongnam-do, 336-795, Korea

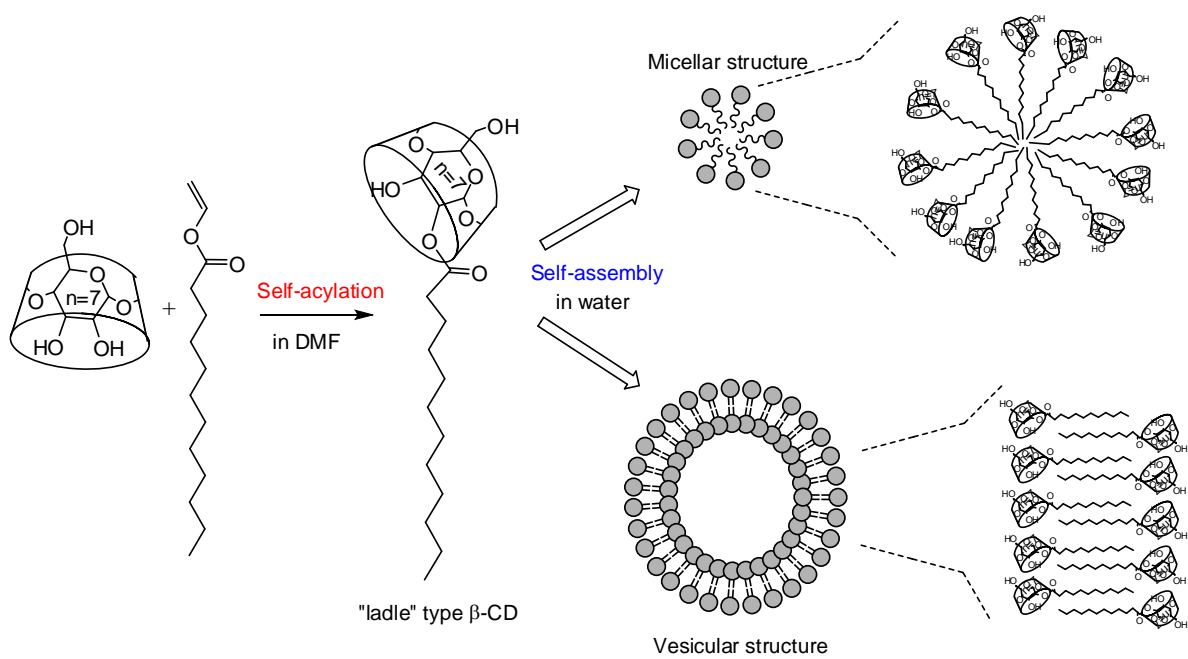


Figure S1. Regioselective self-acylating and self-assembling mono-2-*O*-lauryl β -CD.

The effect of a competitor (adamantane carboxylate) on self-laurylation of β -CD. β -CD (50 mg, 0.044 mmol) was dissolved in 0.5 mL of DMF, and then 1-adamantanecarboxylic acid (7.9 mg, 0.044 mmol or 79 mg 0.44 mmol) was added. After stirring at 50 °C for 3 h, vinyl laurate (12 μ L, 0.044 mmol) was added and reacted for 24 h.

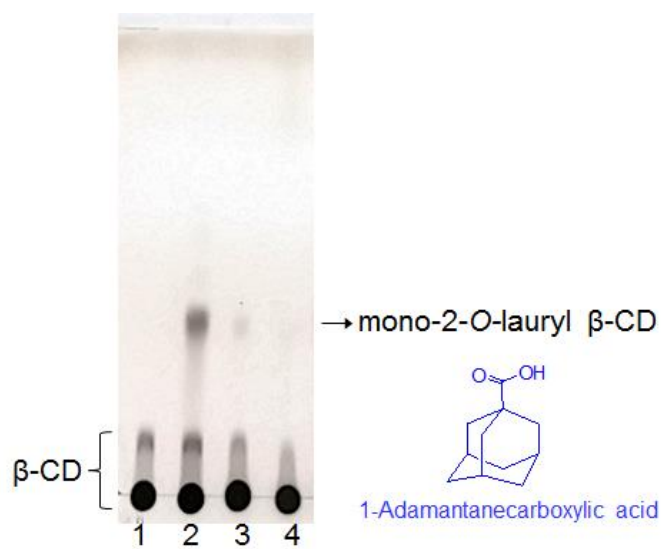


Figure S2. TLC analysis of β -CD reaction mixtures in DMF at 50 °C after 24 h. Mobile phase: BuOH/EtOH/H₂O (4:2:1, v/v/v). β -CD (Lane 1); β -CD/vinyl laurate (mole ratio= 1/1) (Lane 2); β -CD/vinyl laurate/1-adamantanecarboxylic acid (mole ratio= 1/1/1) (Lane 3); β -CD/vinyl laurate/1-adamantanecarboxylic acid (mole ratio= 1/1/10) (Lane 4).