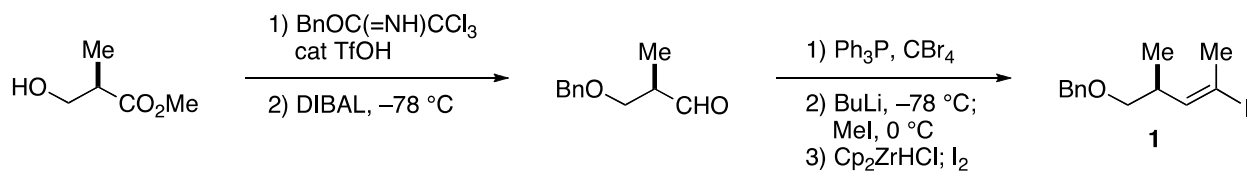
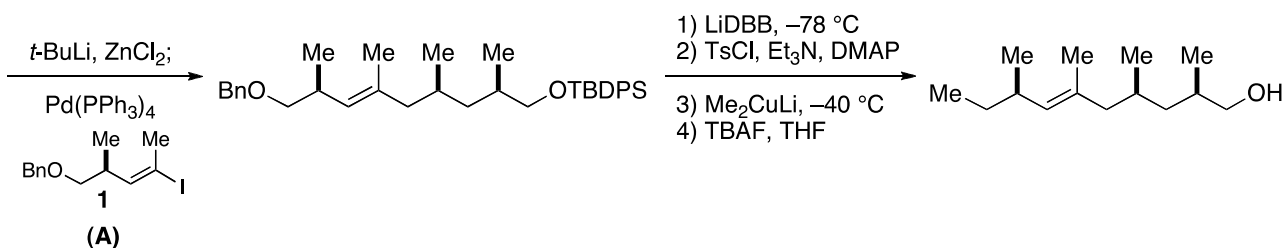
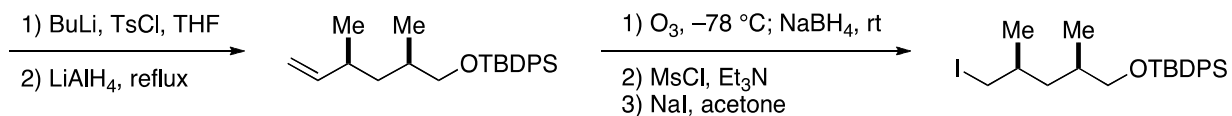
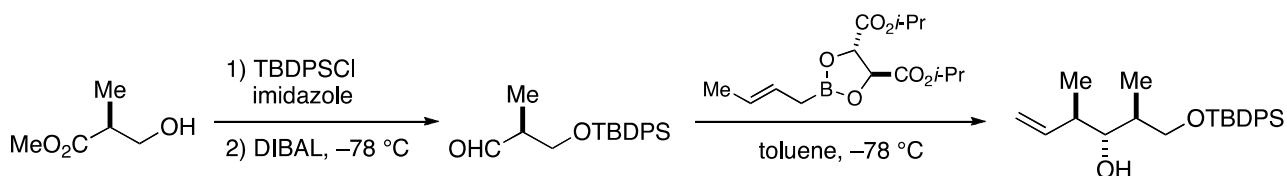
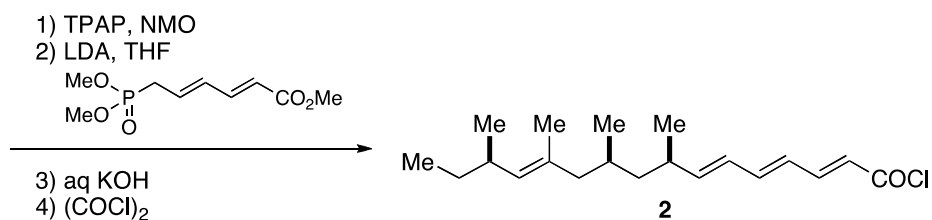


| (+)-Scyphostatin (TKGP-110305) |  | T. Katoh <sup>1)-3)</sup> |
|--------------------------------|--|---------------------------|
|                                |  |                           |
| <b>Activity</b>                | Neutral sphingomyelinase inhibitor (中性スフィンゴミエリナーゼ阻害剤)                                      |                           |
| <b>Key Reactions</b>           | (A) Negishi coupling, (B) aldol reaction, (C) ring-closing metathesis, (D) amide formation |                           |

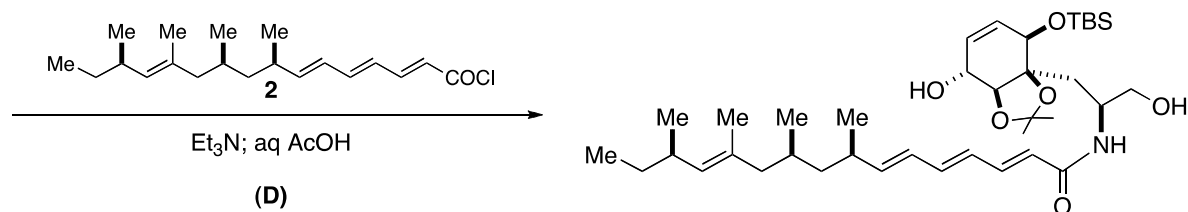
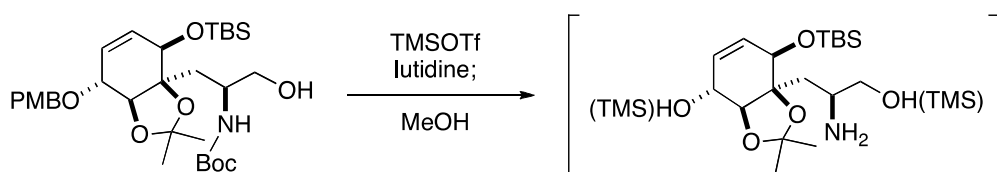
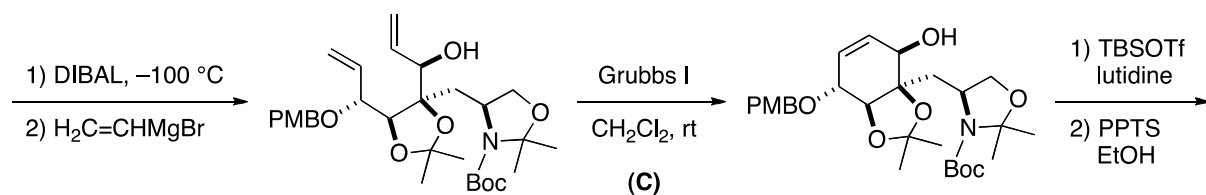
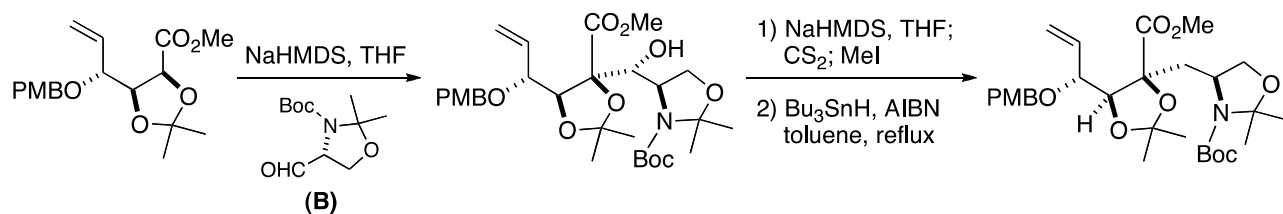
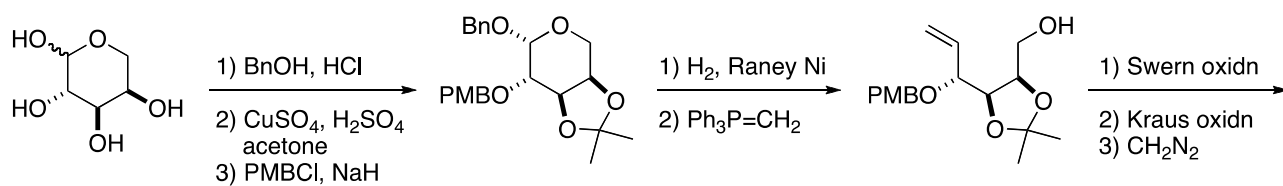


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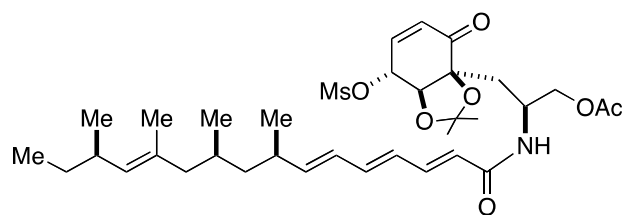


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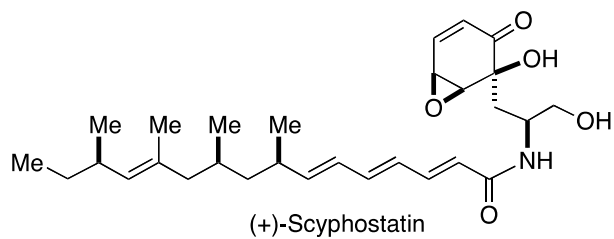
1) Ac<sub>2</sub>O, pyridine, DMAP, CH<sub>2</sub>Cl<sub>2</sub>  
2) MsCl, Et<sub>3</sub>N, CH<sub>2</sub>Cl<sub>2</sub>

3) TBAF, THF  
4) Dess-Martin oxidn



1) Cl<sub>3</sub>CCO<sub>2</sub>H, H<sub>2</sub>O, CH<sub>2</sub>Cl<sub>2</sub>, reflux;  
aq NaOH, rt

2) lipase PS, buffer (pH 7)  
acetone, rt



#### References:

- 1) M. Inoue, W. Yokota, M. G. Muruges, T. Izuhara, T. Katoh, *Angew. Chem., Int. Ed.*, **43**, 4207 (2004)
- 2) M. Inoue, W. Yokota, T. Katoh, *Synthesis*, 622 (2007)
- 3) 井上宗宣, 横田和加子, 加藤正, 有機合成化学協会誌, **65**, 358 (2007)