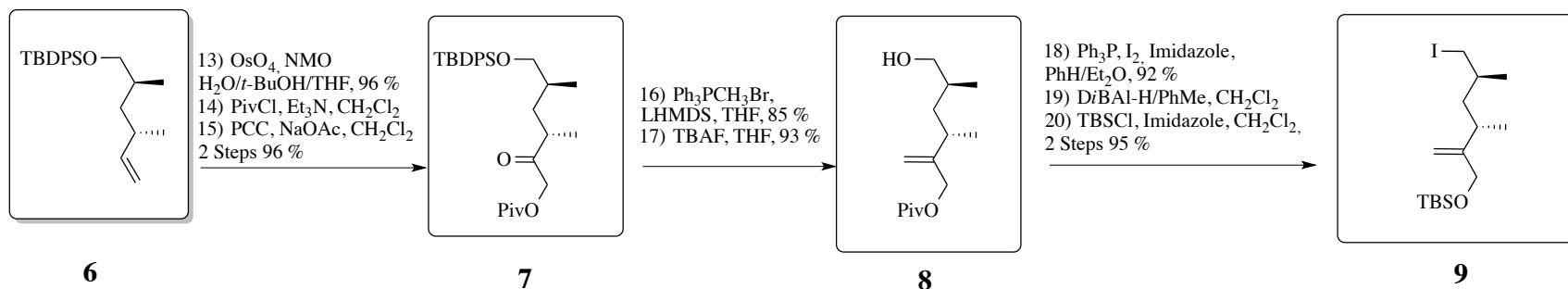
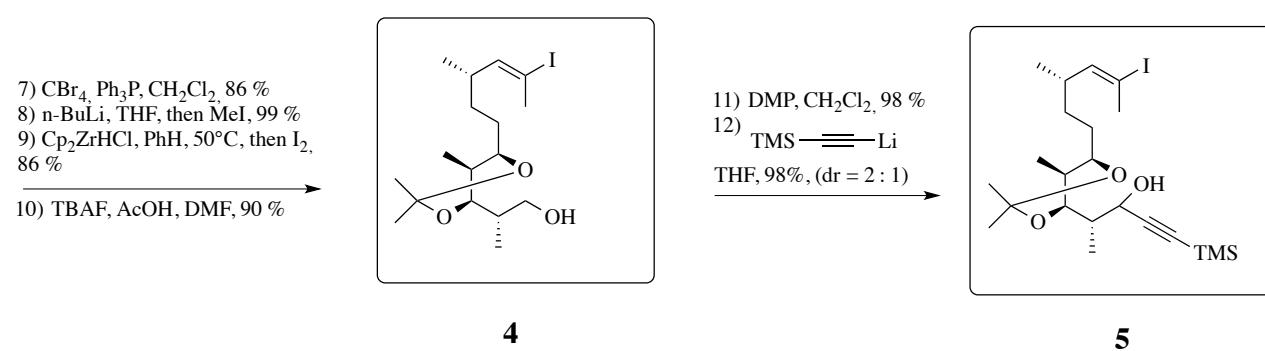
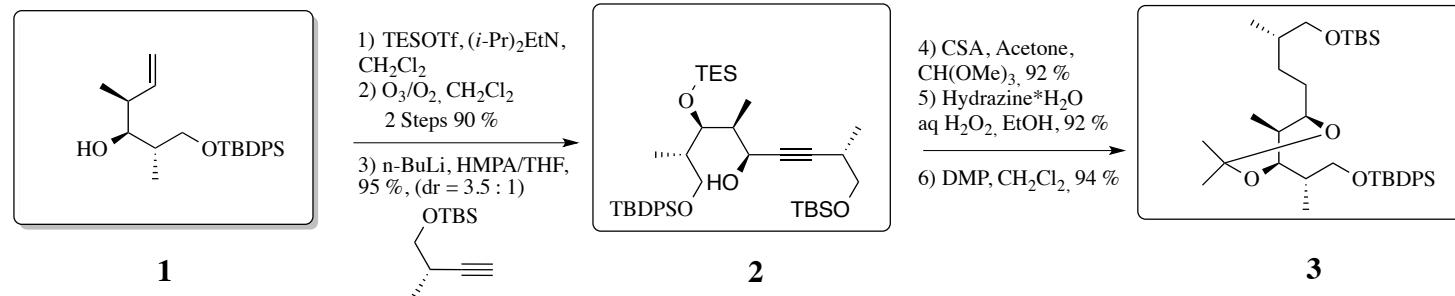


Total Synthesis of Kendomycin

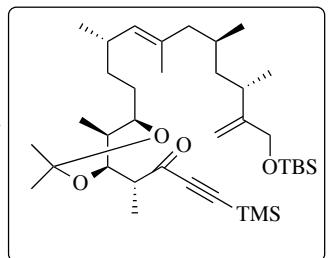
K. Tanaka, M. Watanabe, K. Ishibashi, H. Matsuyama, Y. Saikawa, M. Nakata, *Org. Lett.* Vol. 12, No. 8, 2010



5 + 9

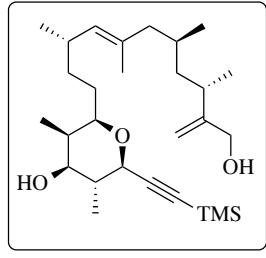
21) **9** (2.5 eq) *t*-BuLi,
B-MeO-9-BBN, Et₂O/THF
then aq K₃PO₄, PdCl₂(dpff)₄/
DMF, 98 %

22) DMP, CH₂Cl₂, 98 %



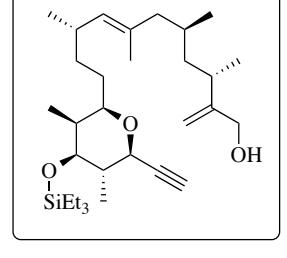
11

23) CSA, MeOH, 89 %
24) Et₃SiH, BF₃*Et₂O,
MeCN, 71 %



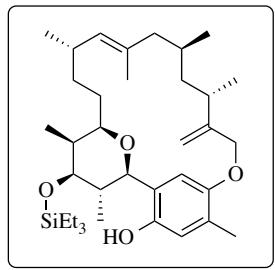
12

25) TESOTf, 2,6 Lutidine,
CH₂Cl₂, 98 %
26) TBAF, AcOH,
DMF, 70 %



13

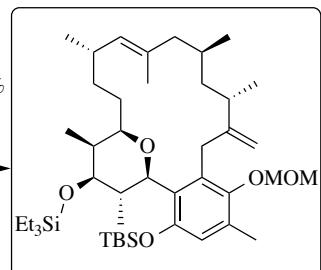
27) Me₄N-O-C(=O)-CH=CH-Cr(CO)₅
AcBr, CH₂Cl₂, -78
to 0 °C, 95 %
28) PhMe, 50 °C,
3h, 58 %



14

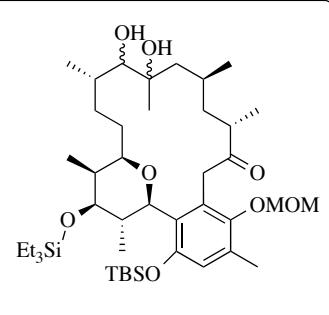
29) TBSOTf, 2,6 Lutidine, CH₂Cl₂, 99 %
30) Ac₂O, DMAP, *N,N*-dimethylalanine,
160 °C, 85 %

31), DiBAL-H, CH₂Cl₂, 94 %
32) MOMCl, (*i*-Pr)₂EtN,
TBAI, (ClCH₂)₂



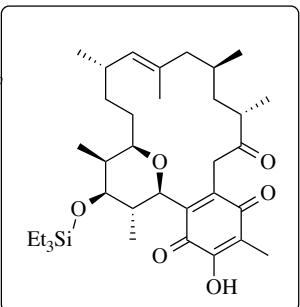
15

33) OsO₄, NMO, *t*-BuOH/
THF/H₂O, 2 Steps 63 %
34) O₃/O₂, CH₂Cl₂, 42 %



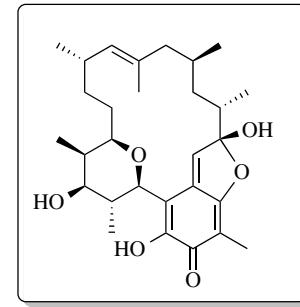
16

35) CS(imid)₂, PhMe, 100 °C, 60 %
36) P(OEt)₃, 140 °C, 60 %
37) TBAF, THF, 83 %
38) IBX, EtOH, 82 %



17

39) SiO₂ (TLC), 2h, 78%
40) aq HF, MeCN, 91 %



Kandomycin
(18)