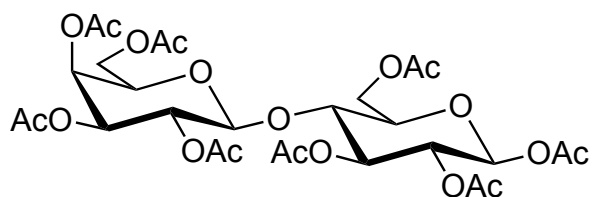


A Practical Total Synthesis of Globo-H for use in Anticancer Vaccines

Jeon, I.; Iyer, K.; and Danishefsky, S.J. *J. Org. Chem.* **ASAP**



lactose derivative

1) HBr, Ac₂O, AcOH
(gives α product)

2) pentenylOH, Ag₂CO₃,
mol sieves



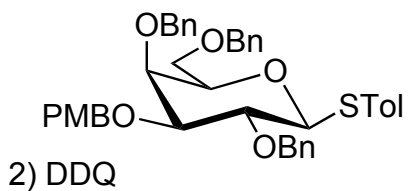
1) NaOMe, MeOH
2) BnBr, Bu₂SnO,
Bu₄Ni
3) PhCH(OMe)₂,
CSA



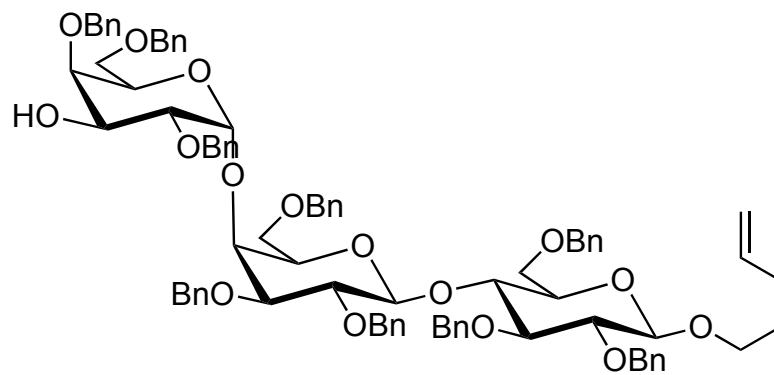
1) BnBr (XS), NaH,
Et₄Ni
2) NaCNBH₃,
HCl (dry)



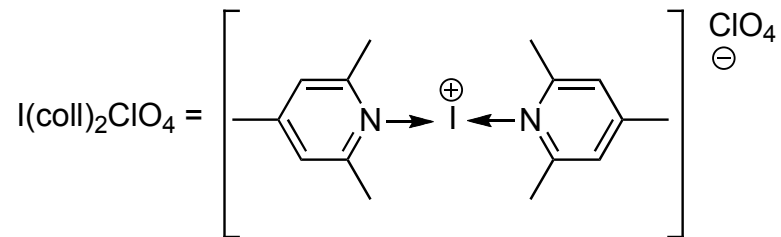
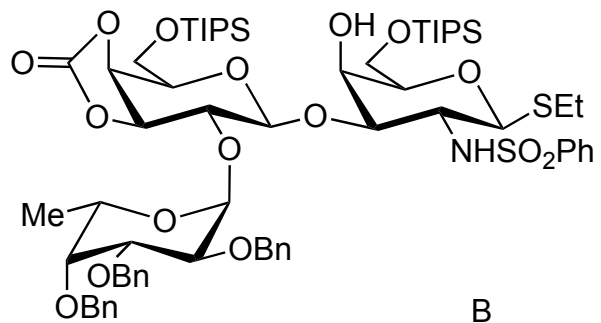
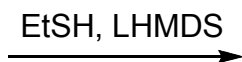
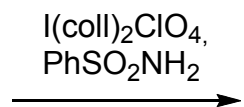
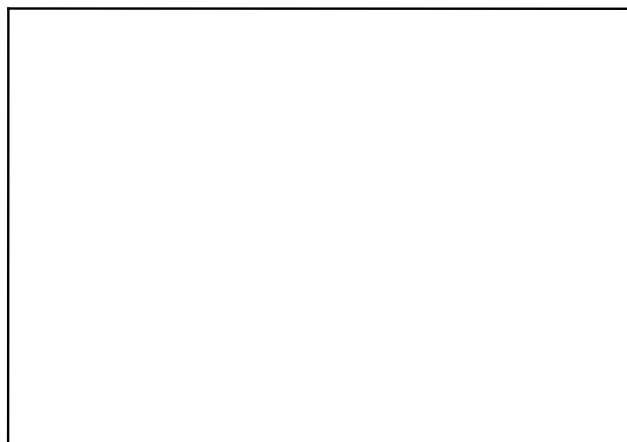
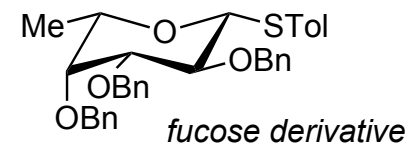
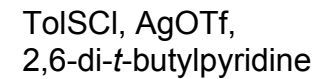
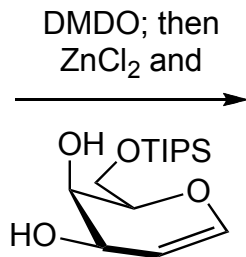
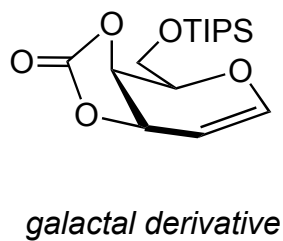
1) TolSCI, AgOTf,
2,6-di-*t*-butylpyridine,

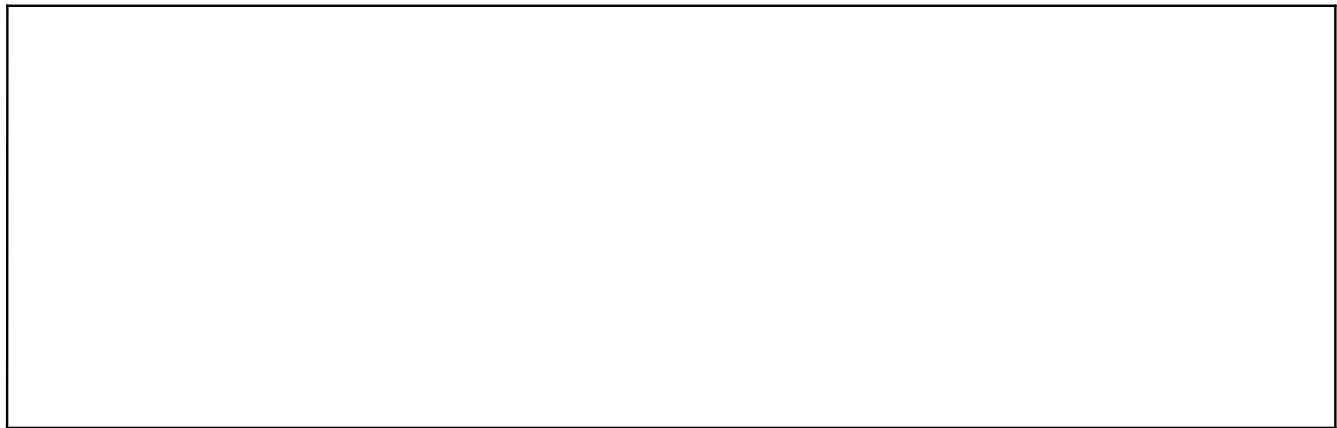
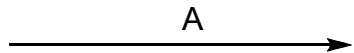
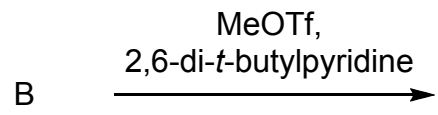


2) DDQ

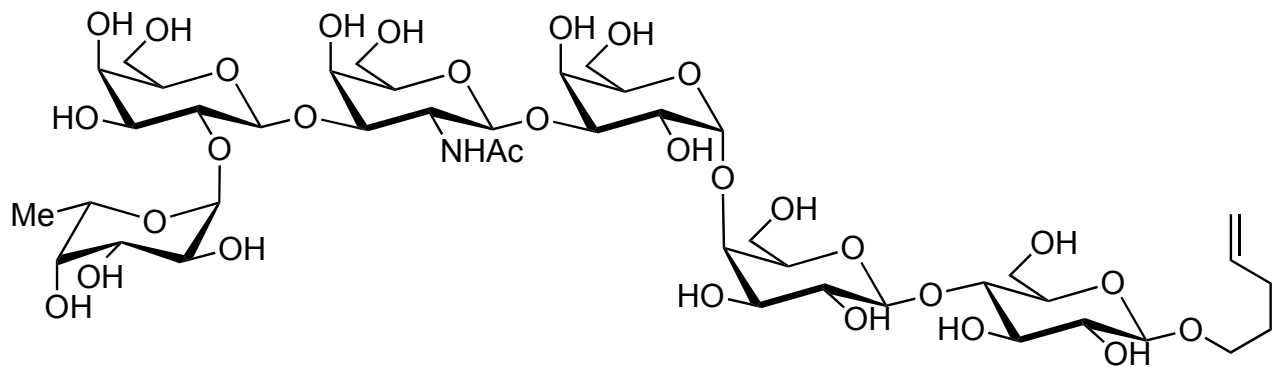


A





- 1) TBAF; then NaOMe, MeOH
 - 2) Na/NH₃ -78 °C
-
- 3) Ac₂O (XS), pyr, DMAP
 - 4) NaOMe, MeOH



Globo-H *n*-pentenyl glycoside